

# **Appendix 7A-4: L-8 Reservoir Project: Annual Water Quality Assessment Report for Water Year 2008**

Guy Germain

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## SUMMARY

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This Annual Water Quality Assessment Report for the L-8 Reservoir Project was prepared to evaluate the results of the Reservoir Project's monitoring program, and most importantly, to determine whether any significant water quality degradation occurred as a result of utilizing the Reservoir Project Cells for temporary water storage. **Figure 1** is a basin map showing the area surrounding the L-8 Reservoir Project. **Figure 2** shows how the L-8 reservoir connects to the regional system, and **Figure 3** shows the L-8 Reservoir Project facilities. The report covers Water Year 2008 (WY2008) (May 1, 2007–April 30, 2008). The project scope included data compilation, screening and analysis, and a characterization of the water quality impacts from the L-8 Reservoir Project. After the data screening and analyses were completed, trends were reviewed, and conclusions drawn based on the final data set. Based on the information presented it is the opinion of the South Florida Water Management District that no degradation in water quality has or will occur to the L-8 canal or basin due to the operation of the L-8 Reservoir Project.

During this reporting period, water from the cells and canals was sampled and tested for physical parameters, nutrients, gross alpha and mercury. The results of the testing are from three reservoir Cells (Class III waters), four sites in the L-8 canal (Class III waters) and one site in the M canal (Class I water). The only water from the L-8 Reservoir Project that is required to meet Class III water quality criteria is the discharge location, and it can not adversely impact water quality in the M canal which is classified as Class I water. Monitoring locations are shown on **Figures 4 and 8**. The parameters with results that exceeded Class III standards from the discharge location were: specific conductivity, dissolved oxygen and gross alpha.

During this reporting period the L-8 and M canal sites contained higher concentrations of nutrients (mainly nitrogen and phosphorus species) than the Reservoir Project cells (See **Table 4** and **Figure 5**). Nutrient concentrations within the Reservoir Project reported since the Reservoir Project began in December 2001 were frequently lower than samples collected from the L-8 and M canal. The Reservoir Project cells are not a source of nutrients, and no other major contributing sources of nutrients are believed to exist, other than the L-8 canal. Water quality data indicate that chlorides and specific conductance are higher in the cells than in the L-8 and M canal.

Gross alpha was significantly higher at the outflow structure than the inflow structure and M canal (see **Table 4**). The cells routinely contained values above the Class III criteria, while there was only one value exceeding Class III criteria from the M canal site. It has been shown that the higher gross alpha concentrations from the reservoir do not affect the concentrations of gross alpha in the L-8 or M canals. Gross alpha is a by-product of radioactive decay and occurs naturally in the environment. It is present in varying amounts in nearly all rock, soils and water.

Mercury analyses were performed during this reporting period on water and fish samples. Water samples were collected from the reservoir and two locations in the L-8 canal. One canal site is located approximately 7.5 miles north of the reservoir and the other is located adjacent to Cell 3. Fish samples were collected from each of the cells and one in the L-8 canal adjacent to Cell 3. There is a surface water quality FDEP standard for ultratrace total mercury which is < 12 ng/L, and an ultratrace methyl mercury standard of < 1 ng/L. There is also a U.S. Environmental Protection Agency (USEPA) recommended methyl mercury fish tissue criterion of 0.3 mg/kg for bass. Mercury concentrations in largemouth bass (*Micropterus salmoides*) in Water Conservation Areas (WCAs) 1, 2, and 3, while having declined by up to 80 percent from the early 1990s to 1998, remain relatively high with a mean of 0.5 mg/kg. **Table 5** shows that all the samples collected during this reporting period for water and fish have results well below these standards.

Piezometers were monitored for water levels only. Results are provided in **Attachment C**.

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## **INTRODUCTION**

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Water quality sampling under the L-8 Reservoir Project began in November 2001. The two Reservoir Project pits began filling up with water shortly thereafter in December 2001. In June 2002, the Florida Department of Environmental Protection (FDEP) issued an Environmental Resource Permit for construction and operation of the Reservoir Project. In February 2003, the FDEP executed a Consent Agreement (OGC File No. 030272-50 RO) that allowed the connection of Pits C and D (Cell 1) to the Reservoir Project pits. In March 2003, the South Florida Water Management District (SFWMD or District) submitted the First Annual Monitoring Report to the FDEP. On March 30, 2007, CERPRA permit: 0188365-005 was issued to the District which allows the District to operate the reservoir as described in the permit.

This Water Quality Assessment Report presents the results of the L-8 Reservoir Project's monitoring program and a determination regarding whether any significant water quality degradation may have occurred when using the Reservoir Project cells for temporary water storage. The assessment is required by the permit and associated Consent Agreement to ensure that the collection and analysis of the water quality data complied with FDEP-approved quality assurance/quality control (QA/QC) procedures.

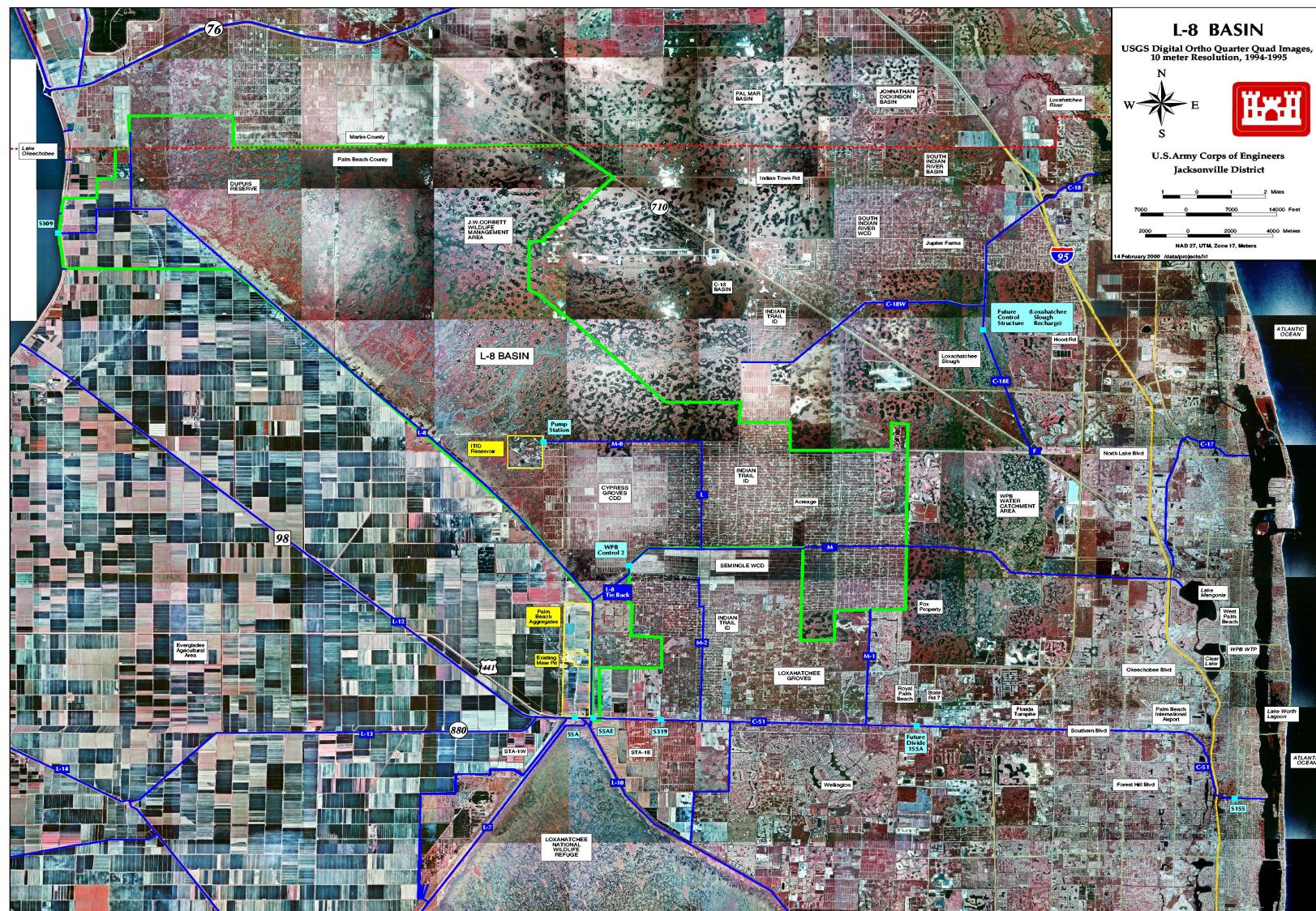
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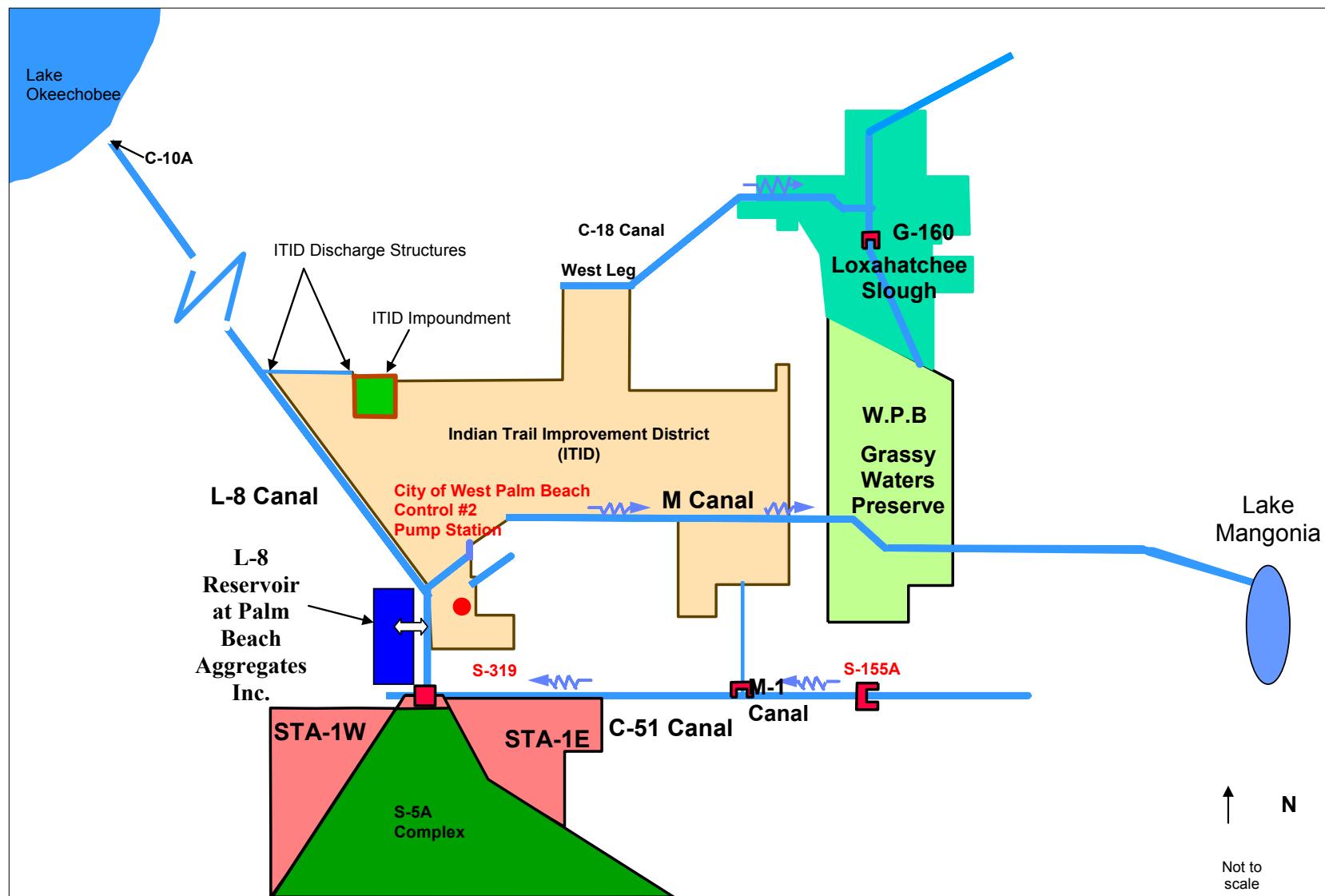
## **DESCRIPTION OF REGIONAL SYSTEM**

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The L-8 basin encompasses approximately 170 square miles (sq mi), with the majority located in northwestern Palm Beach County and approximately 2 sq mi in southwestern Martin County (see **Figure 1**). The majority of the land in the upper L-8 basin is comprised of the J.W. Corbett Wildlife Management Area, owned and managed by the Florida Fish and Wildlife Conservation Commission and DuPuis Reserve which is owned and managed by the SFWMD. However, there are areas in close proximity to Lake Okeechobee that consist of agricultural land. The lower L-8 basin, located downstream of the M canal includes the Indian Trail Improvement District (ITID) service area and several square miles of agricultural and rural area.

The regional flow in the L-8 basin (see **Figure 2**) is complex and has several operating procedures that affect the flow in and out of the system. The upstream water source is Lake Okeechobee via SFWMD's culvert 10A. Culvert 10A is a structure consisting of five 10 feet (ft) diameter corrugated metal pipe (CMP) culverts with inverts at elevation 5.5 ft National Geodetic Vertical Datum (NGVD). Four of the culverts have flap gates on the lake side, and the center barrel has a 10 ft x 10 ft operable slide gate. Therefore, the inflow into the L-8 canal through culvert 10A is a function of the head difference between the lake and canal water levels. Throughout the L-8 basin, water is discharged into the L-8 canal for drainage as well as withdrawn for water use. The current water use consists of both public water supply and irrigation.

**Figure 1.** L-8 basin map.



**Figure 2.** L-8 reservoir connections to the regional system.

The water used for public water supply is pumped using the city of West Palm Beach's Control 2 pump station located on the M canal. The water then flows east through the M canal to Grassy Waters Preserve (GWP) and eventually to the city's water supply lakes, Lake Mangonia and Clear Lake, where it is withdrawn for treatment.

Water in the L-8 canal is withdrawn from and discharged to the L-8 canal during the operation of the L-8 Reservoir Project. The withdrawal/discharge location is south of the confluence of the L-8 and M canals. The reservoir is used for storage of excess runoff from the basin to reduce discharges from the basin to the C-51 canal and ultimately to tide. The water stored can then be either discharged during the dry season for water supply for the city of West Palm Beach or for environmental purposes. During the wet season, the water can be discharged back into the L-8 canal between storm events at relatively lower rates, once the stage in the L-8 canal has dropped to within normal operating range to recover storage capacity in the reservoir.

Discharges into the L-8 canal, excluding Lake Okeechobee and the L-8 Reservoir at Palm Beach Aggregates, Inc. (PBA), include ITID, and WCA-1. The water discharged from ITID consists of the stormwater runoff from the 19,000-acre M-1 basin. Water is discharged from the ITID M-1 basin impoundment area through its L-8 outfall structure located approximately 11 mi north of State Road 80 (S.R. 80). The discharges from WCA-1 are dependent on the operating criteria of SFWMD's structures S-5AS, S-5AE, and S-5AW.

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## L-8 RESERVOIR PROJECT

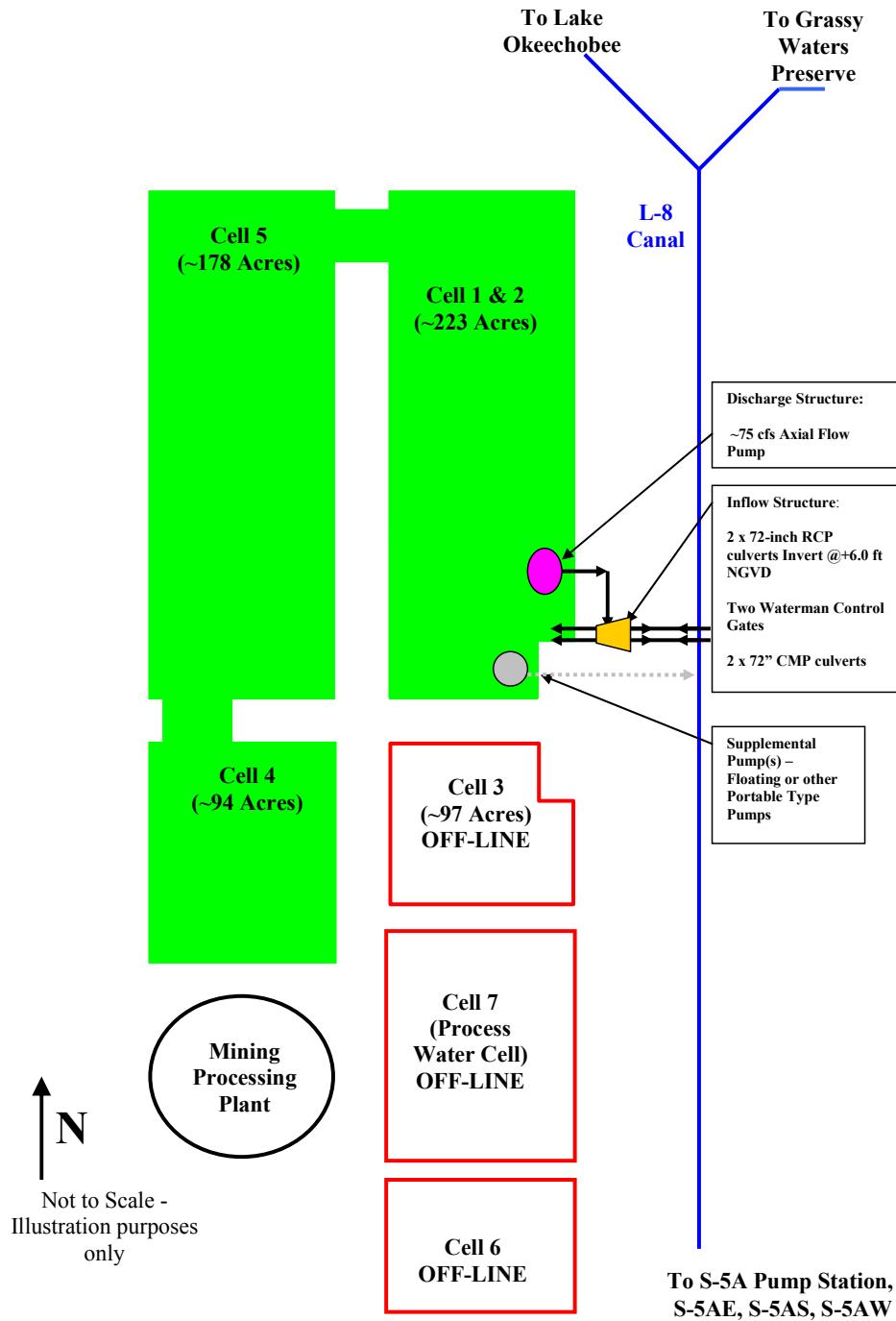
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### LOCAL HYDROLOGY

During the life of the Reservoir Project, the local hydrology of the cells and surrounding mining operation has been in a constant state of change. Upon completion of the mining operations, there will be fewer outside influences on the Reservoir Project cells.

The inflow structure from the L-8 canal to Cell 1/2 consists of two 72 inch x 472 linear feet (lf) of reinforced concrete pipe (RCP) culverts with invert elevations of +6.0 ft NGVD, each with a 6 ft x 6 ft sluice gate, and another 100 lf of 72-inch CMP culvert. The discharge structure is equipped with one 75 cubic feet per second (cfs) capacity pump which discharges to the water control structure box, and out of the twin 72-inch RCP culverts to the L-8 canal. Additional pumping capacity may be added by utilizing floating or other portable pumps up to a capacity of 75 cfs for a total maximum discharge rate of 150 cfs.

Flow and stage results are provided in **Attachment B**.

**Figure 3.** L-8 Reservoir Project facilities.

## GEOLOGY

The PBA rock quarry is located in central Palm Beach County and is centered approximately 2 mi north of S.R. 80, near 20-Mile Bend. The area surrounding PBA was historically used for agricultural purposes, and to some extent continues to be utilized for growing sugar cane and turf. Within the last decade or so, PBA and its predecessor (GKK) have mined soil and rock materials for the purpose of building and road construction. The quarry is subdivided into roughly six 100-acre pits, and each pit is dewatered by pumping from sumps and perimeter rim ditches. Each pit was originally excavated to approximately 30 ft below surrounding grade for mining purposes. Each pit has been excavated further to approximately 50 ft below surrounding grade for the reservoir project.

Based upon review of the U. S. Geological Survey (USGS) Loxahatchee quadrangle map, dated 1971 and photo-revised 1984, the PBA site has a natural ground surface elevation of approximately +15 ft with respect to the NGVD of 1929. Research of the Soil Survey of Palm Beach County Area published by the U. S. Department of Agriculture, Soil Conservation Service (USDA SCS) indicates the site is masked by the soil association Holopaw fine sand. This is nearly level, poorly drained sand that has a loamy subsoil at a depth of 40 to 72 inches. Under natural conditions, the water table (i.e., absent drainage improvements) is near the ground surface.

According to Brooks (1981), the site lies near the somewhat gradual transition between the Eastern Flatwoods District (Green Ridge-Loxahatchee Karst) and the Gold Coast and Florida Bay District (Everglades, Andytown Ridges and Sloughs). The Green Ridge-Loxahatchee Karst is described as poorly drained open flatwoods with cypress strands and heads, while the Andytown Ridges and Sloughs is a freshwater marsh with varying thickness of peat. Brooks (1981) maps the site as Qftg, the Fort Thompson Group. This area consists of clastic and shell deposits associated with the middle and early Pleistocene stands of sea level.

Geologic conditions at the PBA site consist of thin depths of surficial peat and sands over a relatively thick deposit of well-cemented sand and shell of marine origin. The cemented layer is referred to as the “Carbonate Rich” zone. It has been reported that the South Florida peninsula formerly existed with sea stands considerably higher than those that currently exist (LBFH and DE&T, 2005). A series of shallow inland tidal channels became home for thousands of marine animals. These and other life forms accumulated over time into reefs, which later lithified into the cemented sand and shell carbonate rich zone. Beneath this layer, a thick deposit of sand and gravel with some cemented zones is common to this geologic area.

The USGS “Altitude of Water Table Aquifer for Palm Beach County, Florida” maps indicate the water table in the vicinity of the PBA site exists at elevation +10 ft NGVD. Groundwater elevations within PBA are influenced locally by the on-site pumping for dewatering of pits associated with mining activities.

Subsurface components disclosed by borings drilled for the L-8 Pilot Storage Project included thin to moderately thick layers of man-placed fill over fine-grained sands, clayey sands, sand with silt and shell, and then silty, sandy limestone and coquina limestone. The limestone materials grade to sand and shell at depths of about 34 to 38 ft below the prevailing ground surface. Sand with broken shell persists to the terminal limits of exploration. The results of exploratory borings drilled for the L-8 Pilot Storage Project disclosed subsurface conditions generally similar to those anticipated based upon research of available geologic literature, as well as those previously reported by Rocky Mountain Consultants, Inc. (Roadbase and Aggregate Investigations, GKK FDOT Mine No. 93-406, dated November 1996) and by Ardaman &

Associates, Inc. (Subsurface Exploration Report, Palm Beach Aggregates – New Mine, dated May 6, 1998). The complete daily flow and stage operations in the reservoir are summarized in **Attachment B**.

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## **WATER QUALITY**

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### **MONITORING LOCATIONS**

Surface water sampling locations are listed in **Table 1** and shown on **Figure 4**.

**Table 1.** Surface water samples.

Sample ID	Sample Location	Coordinates	
		Latitude	Longitude
SW-1B	L-8 Canal, approximately 6.6 miles northwest of its junction with the M Canal	264849.34	802600.575
SW-3	M Canal at the west side of the Seminole Pratt Whitney Road bridge	264553.918	801825.728
SW-6IN	Inflow Structure Southeast corner of Cell 1/2	264338.836	802149.982
SW-6OUT	Outflow Structure Southeast corner of Cell 1/2	264339.412	802154.419
L8MZBN	L-8 Canal 800 meters north of the discharge location	264404.689	802147.253
L8MZBS	L-8 Canal 800 meters south of the discharge location	264313.305	802148.492

## SAMPLING PROTOCOL

Surface water samples were collected from five of the six sampling locations on a weekly basis only during inflow or outflow events. The sixth site (SW-1B) is only sampled for mercury on a quarterly basis. SW-3 is a downstream reference site sampled weekly when water is discharged from the reservoir. During WY2008, routine monitoring was done by Golder Associates, Inc. under contract to the District; all pesticide and mercury monitoring was done by District staff. The samples were obtained from 0.5 meters below the water surface. Specific conductivity, pH, dissolved oxygen, and temperature were measured in the field for all samples.

## WATER QUALITY STANDARDS

Chapter 62-302.530, Florida Administrative Code, Criteria for Surface Water Quality Classifications, indicates the following water quality criteria for Class I (Potable Water Supply) and Class III (Predominantly Fresh Waters) waters for selected analytical parameters (**Table 2**).

**Table 2.** Surface water quality criteria.

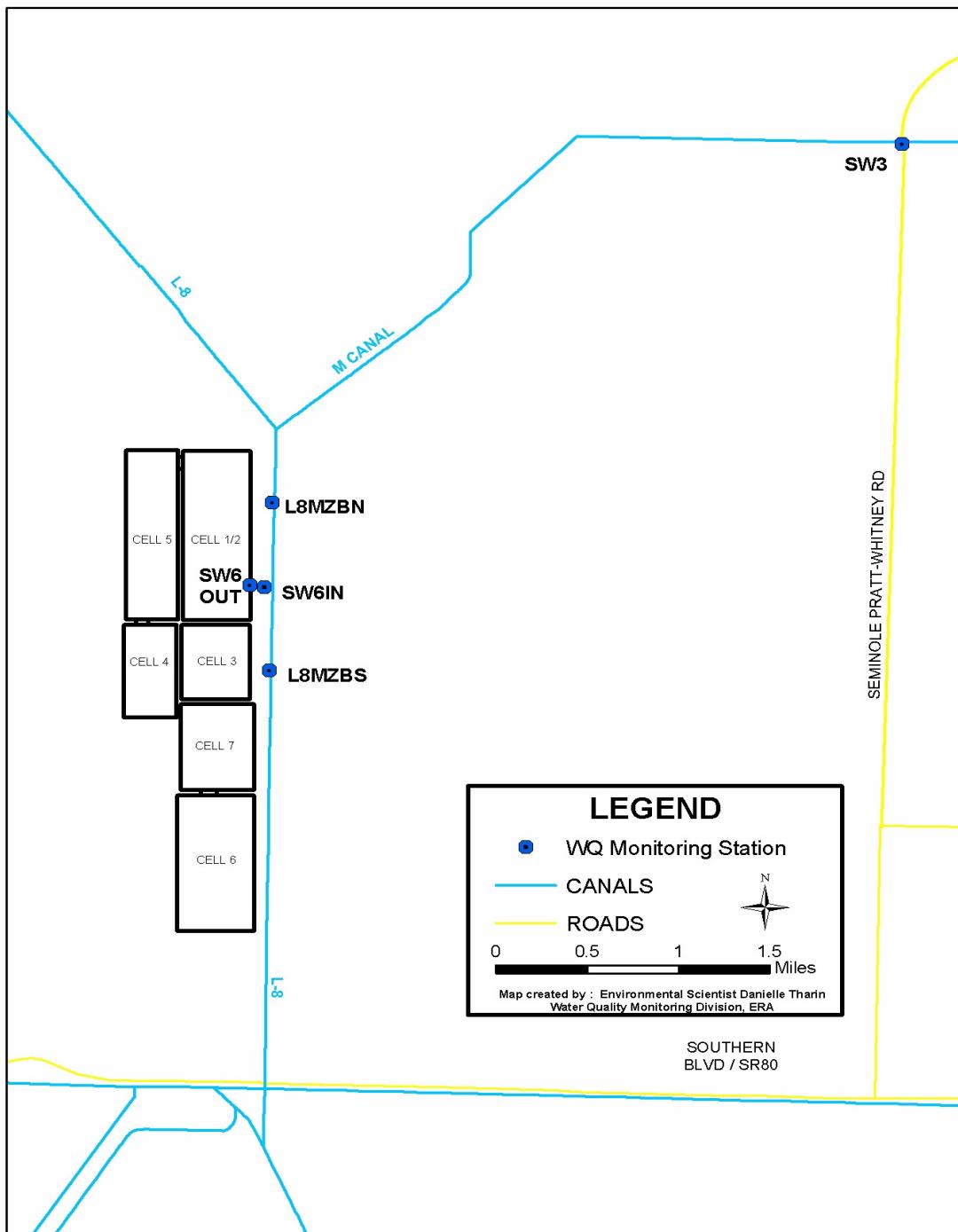
Parameter	Units	Class I	Class III (Fresh)
Chlorides	mg/L	$\leq 250$	N/A
Specific Conductance	$\mu\text{S}/\text{cm}$	$\leq 1275^*$	$\leq 1275^*$
Dissolved Oxygen	mg/L	$\geq 5.0$	$\geq 5.0$
pH	Standard	$6.0 < \text{pH} < 8.5$	
Gross Alpha	$\text{pCi}/\text{L}$	$\leq 15$	$\leq 15$

Notes: mg/L = milligrams per liter

$\mu\text{S}/\text{cm}$  = microsiemens per centimeter

$\text{pCi}/\text{L}$  = picocurie per liter

\* or 50% above background, whichever is greater



**Figure 4.** L-8 Reservoir Project water quality sampling locations.

## DATA SUMMARY TABLES

**Tables 3 and 4** contain statistics on the parameters monitored during WY2008.

**Table 3.** Statistical summary of physical parameters monitored during WY2008.

Temperature (°C)						pH (units)						
Statistics	SW-3	SW-6IN	SW-6OUT	L8MZBN	L8MZBS	Statistics	SW-3	SW-6IN	SW-6OUT	L8MZBN	L8MZBS	
	M Canal	L8 Canal	Cell 1/2	L8 Canal	L8 Canal		M Canal	L8 Canal	Cell 1/2	L8 Canal	L8 Canal	
Count	7	9	14	3	3	Count	7	8	12	2	2	
Avg	26.5	26.0	25.4	24.5	24.6	Avg	7.84	7.48	7.95	7.50	7.40	
STD	1.6	2.8	2.6	2.8	2.7	STD	0.28	0.34	0.39	0.28	0.14	
Min	24	21	20	22	22	Min	7.40	6.90	7.00	7.30	7.30	
25%	26	25	23	23	23	25%	7.60	7.30	7.90	7.30	7.30	
75%	28	28	28	27	27	75%	8.00	7.65	8.20	7.70	7.50	
Max	29	30	29	28	28	Max	8.10	8.00	8.30	7.70	7.50	
Dissolved Oxygen (mg/L)						Conductivity (µS/cm)						
Statistics	SW-3	SW-6IN	SW-6OUT	L8MZBN	L8MZBS	Statistics	SW-3	SW-6IN	SW-6OUT	L8MZBN	L8MZBS	
	M Canal	L8 Canal	Cell 1/2	L8 Canal	L8 Canal		M Canal	L8 Canal	Cell 1/2	L8 Canal	L8 Canal	
Count	7	8	12	2	2	Count	6	7	27	20	20	
Avg	5.2	3.3	6.4	5.0	5.5	Avg	1,125.5	681.4	2,188.9	768.2	569.3	
STD	1.5	1.2	1.4	2.0	1.8	STD	821.9	196.2	276.1	161.7	61.1	
Min	2.8	1.3	4.5	3.6	4.2	Min	337	533	1,422	489	480	
25%	3.8	2.8	5.2	3.6	4.2	25%	480	576	2,067	619	526	
75%	6.4	3.8	7.0	6.4	6.8	75%	2,039	651	2,224	898	619	
Max	6.4	5.6	9.4	6.4	6.8	Max	2,270	1,114	2,988	978	695	
Sulfate (mg/L)						Calculated Chloride (mg/L) <sup>a</sup>						
Statistics	SW-1B	SW-3	SW-6IN	SW-6OUT	L8MZBN	L8MZBS	SW-1B	SW-3	SW-6IN	SW-6OUT	L8MZBN	L8MZBS
	L8 Canal	M Canal	L8 Canal	Cell 1/2	L8 Canal	L8 Canal	L8 Canal	M Canal	L8 Canal	Cell 1/2	L8 Canal	L8 Canal
Count	4	7	8	15	NA	NA	NA	NA	NA	27	20	20
Avg	33.1	62.9	32.3	173.3	NA	NA	NA	NA	NA	430	120	77
STD	43.9	61.1	17.2	27.5	NA	NA	NA	NA	NA	60	35	13
Min	4.4	11.6	16.5	132.0	NA	NA	NA	NA	NA	263	59	57
25%	6.3	14.1	20.6	155.5	NA	NA	NA	NA	NA	403	88	68
75%	59.9	122.0	43.4	202.5	NA	NA	NA	NA	NA	438	149	88
Max	98.0	154.0	61.6	218.0	NA	NA	NA	NA	NA	604	166	104

Note:

<sup>a</sup> Chlorides were calculated from specific conductance using the equation specified in CERPRA Permit No. 0188365-008:  
Chloride = 0.218(Specific Conductance) - 47.2.

NA - Data was not available

**Table 4.** Statistical summary of nutrient and radiological parameters monitored during WY2008.

Total Phosphorus (mg/L)					Total Kjeldahl Nitrogen as N (mg/L)						
Statistics	SW-3	SW-6IN	SW-6OUT	L8MZBN	L8MZBS	Statistics	SW-3	SW-6IN	SW-6OUT	L8MZBN	L8MZBS
	M Canal	L8 Canal	Cell 1/2	L8 Canal	L8 Canal		M Canal	L8 Canal	Cell 1/2	L8 Canal	L8 Canal
Count	7	8	11	NA	NA	Count	7	8	11	NA	NA
Avg	0.087	0.064	0.018	NA	NA	Avg	1.21	1.65	0.99	NA	NA
STD	0.039	0.047	0.008	NA	NA	STD	0.22	0.91	0.14	NA	NA
Min	0.038	0.026	0.009	NA	NA	Min	0.87	0.91	0.85	NA	NA
25%	0.060	0.033	0.013	NA	NA	25%	1.02	1.13	0.89	NA	NA
75%	0.098	0.088	0.022	NA	NA	75%	1.38	2.04	1.03	NA	NA
Max	0.161	0.153	0.037	NA	NA	Max	1.41	3.41	1.36	NA	NA
Nitrate + Nitrite as N (mg/L)					Total Nitrogen (mg/L)						
Statistics	SW-3	SW-6IN	SW-6OUT	L8MZBN	L8MZBS	Statistics	SW-3	SW-6IN	SW-6OUT	L8MZBN	L8MZBS
	M Canal	L8 Canal	Cell 1/2	L8 Canal	L8 Canal		M Canal	L8 Canal	Cell 1/2	L8 Canal	L8 Canal
Count	7	7	11	NA	NA	Count	7	6	11	NA	NA
Avg	0.040	0.267	0.145	NA	NA	Avg	1.25	2.09	1.13	NA	NA
STD	0.037	0.438	0.098	NA	NA	STD	0.21	1.49	0.21	NA	NA
Min	<0.005	0.021	<0.006	NA	NA	Min	0.98	0.94	0.86	NA	NA
25%	0.012	0.029	0.031	NA	NA	25%	1.03	1.06	0.96	NA	NA
75%	0.058	0.395	0.224	NA	NA	75%	1.43	3.24	1.26	NA	NA
Max	0.110	1.179	0.250	NA	NA	Max	1.44	4.59	1.59	NA	NA
Gross Alpha (pCi/L)											
Statistics	SW-3		SW-6IN		SW-6OUT		L8MZBN		L8MZBS		
	M Canal		L8 Canal		Cell 1/2		L8 Canal		L8 Canal		
Count	5		2		4		NA		NA		
Avg	5.0		2.3		15.4		NA		NA		
STD	6.2		0.4		7.9		NA		NA		
Min	<1.4		<2		7.8		NA		NA		
25%	2.2		2.0		9.8		NA		NA		
75%	6.0		2.6		21.0		NA		NA		
Max	16.1		2.6		26.2		NA		NA		

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## **ASSESSMENT OF WATER QUALITY DATA**

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Surface water quality data for the L-8 Reservoir Project (WY2008) are provided in **Attachment A**.

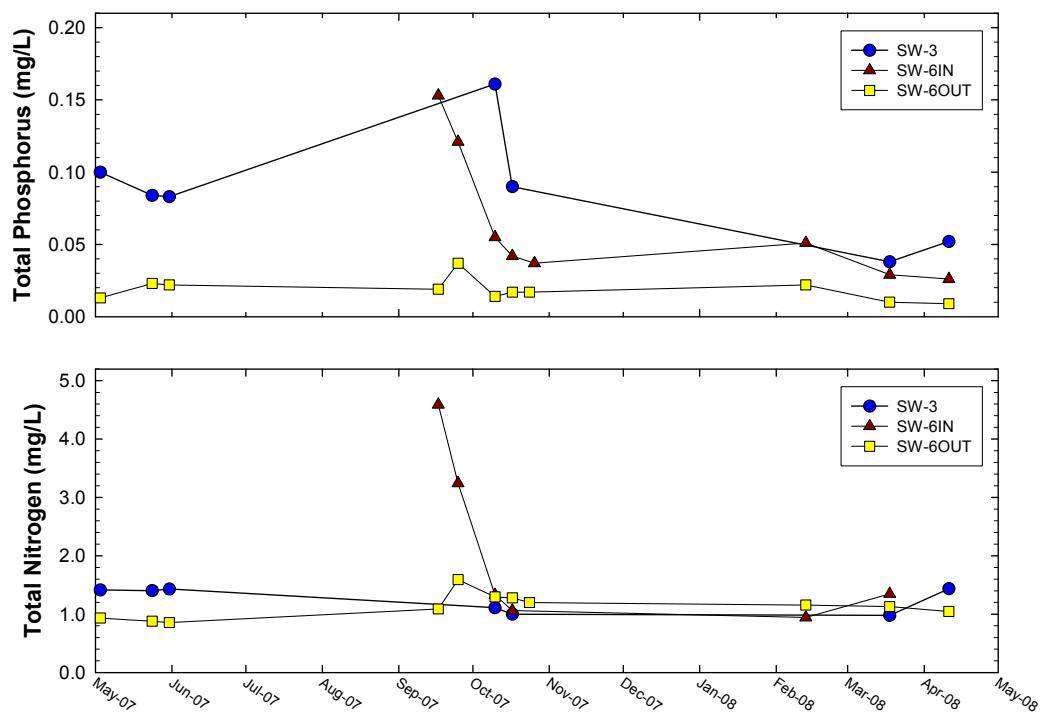
### **GROSS ALPHA**

Gross alpha is a by-product of radioactive decay and occurs naturally in the environment. It is present in varying amounts in nearly all rock, soils, and water.

Gross alpha was sampled at three sites SW-6IN, SW-6OUT, and SW-3 (see Table 4). Gross alpha was significantly higher at SW-6OUT (reservoir site) than at SW-6IN and SW-3 (L-8 and M1 canal sites). Gross alpha at SW-6OUT ranged from 7.8 picocuries per litre (pCi/L) to 26.2 pCi/L. Gross alpha SW-6IN and SW-3 ranged from < 1.4 pCi/L to 16.1 pCi/L. The state criteria is < 15 pCi/L for both Class I and Class III waters. There were no values above the Class III standard at SW-6IN, there was one value at SW-3 (16.1 pCi/L) that was above the Class I criteria, this was due to the emergency order the District received in April 2007 to release water from the L-8 reservoir to be pumped through the West Palm Beach control 2 pump station because of the low water levels for the city of West Palm Beach water supply. All other values at SW-3 were < 2.6 pCi/L. Therefore, the water from the L-8 Reservoir Project does not appear to cause or contribute to an increase in gross alpha in the L-8 or M canals during normal operations.

### **NUTRIENTS**

The nutrients analyzed in the canals and reservoir was total phosphorus, total Kjeldahl nitrogen, NO<sub>x</sub>, and total nitrogen. All nutrients had higher concentrations in the L-8 and M canals than in the reservoir (See **Table 4** and **Figure 5**). **Table 4** also shows the highest total phosphorus concentrations from the reservoir at SW-6OUT was 0.037 mg/L, while the highest in the L-8 or M canals was 0.161 mg/L. Total nitrogen had the same outcome as phosphorus with the highest concentration in the L-8 canal being 4.59 mg/L and 1.59 mg/L from the reservoir. The L-8 reservoir does not cause or contribute to an increase of phosphorus or nitrogen in the L-8 basin.



**Figure 5.** Time-series plots of total phosphorus and total nitrogen measured at three structures during WY2008.

## PHYSICAL PARAMETERS

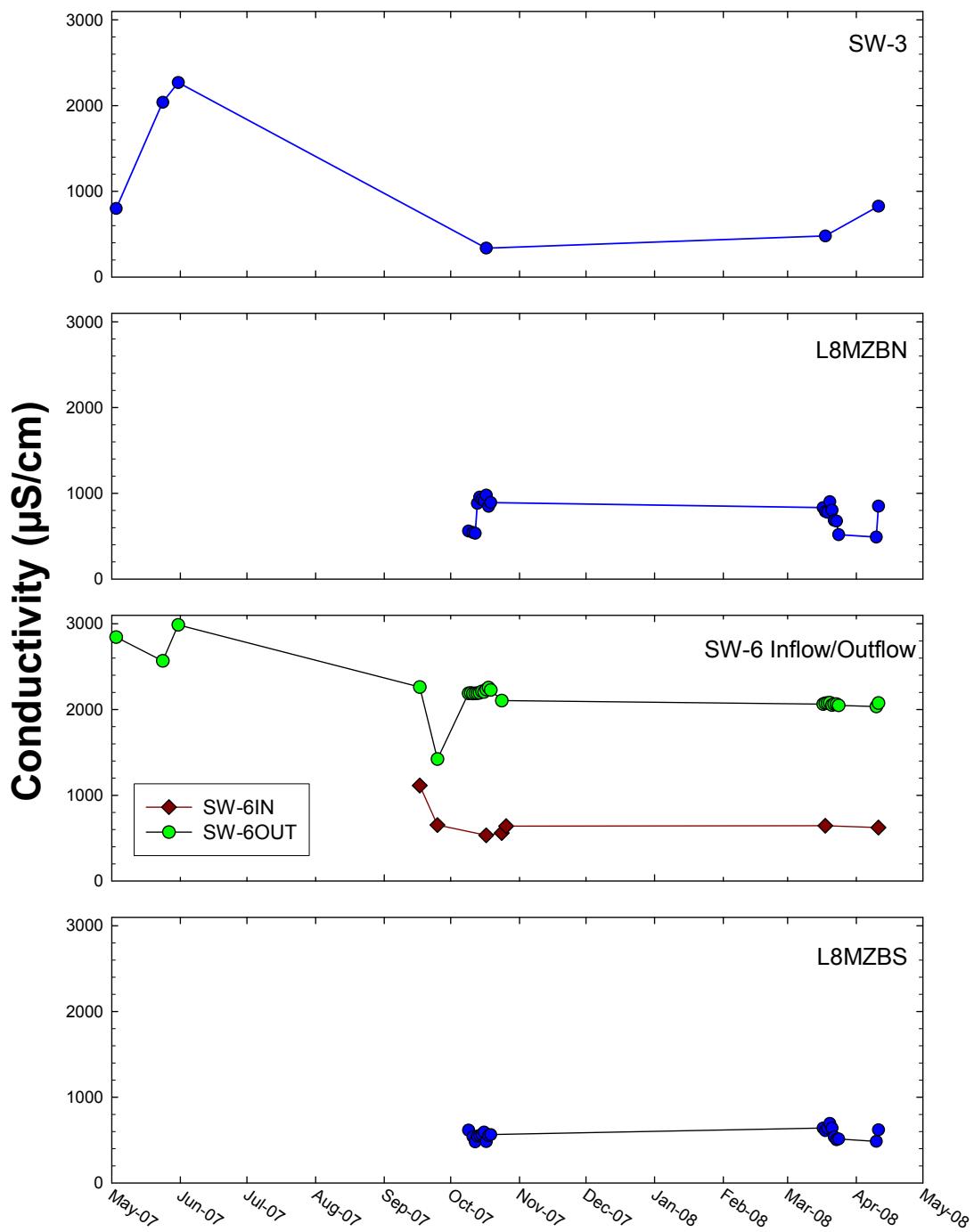
The physical parameters analyzed in the reservoir and canals were temperature, dissolved oxygen, pH, specific conductivity, and calculated chloride.

As shown on **Figure 6** and in **Table 3**, conductivity was significantly higher in the reservoir than in the canal sites. This is mainly due to the construction activities completed just prior to the beginning of WY2008 and ground water that enters the reservoir. Conductivity has slowly declined since the beginning of WY2008 and all activity has stopped. The mixing zone sites L8MZBN and L8MZBS were initiated in October 2007. These sites were sampled daily for conductivity along with SW-6OUT when water was discharged from the reservoir. **Figure 6** and **Table 3** show that the conductivity was greatly reduced by the time it reached the mixing zone sites. The Class III standard for conductivity is < 1,275 microsiemens per centimeter ( $\mu\text{S}/\text{cm}$ ). The values were well above this standard at the outflow site, but well below the standard by the time the water reached the mixing zone sites. The only time conductivity exceeded the standard was in May 2007 at SW-3 after an emergency order was granted to move water from the reservoir to West Palm Beach's water supply because of the extremely low water levels for municipal services. Under normal conditions, the high-conductivity water in the reservoir does not significantly increase the conductivity in the L-8 basin.

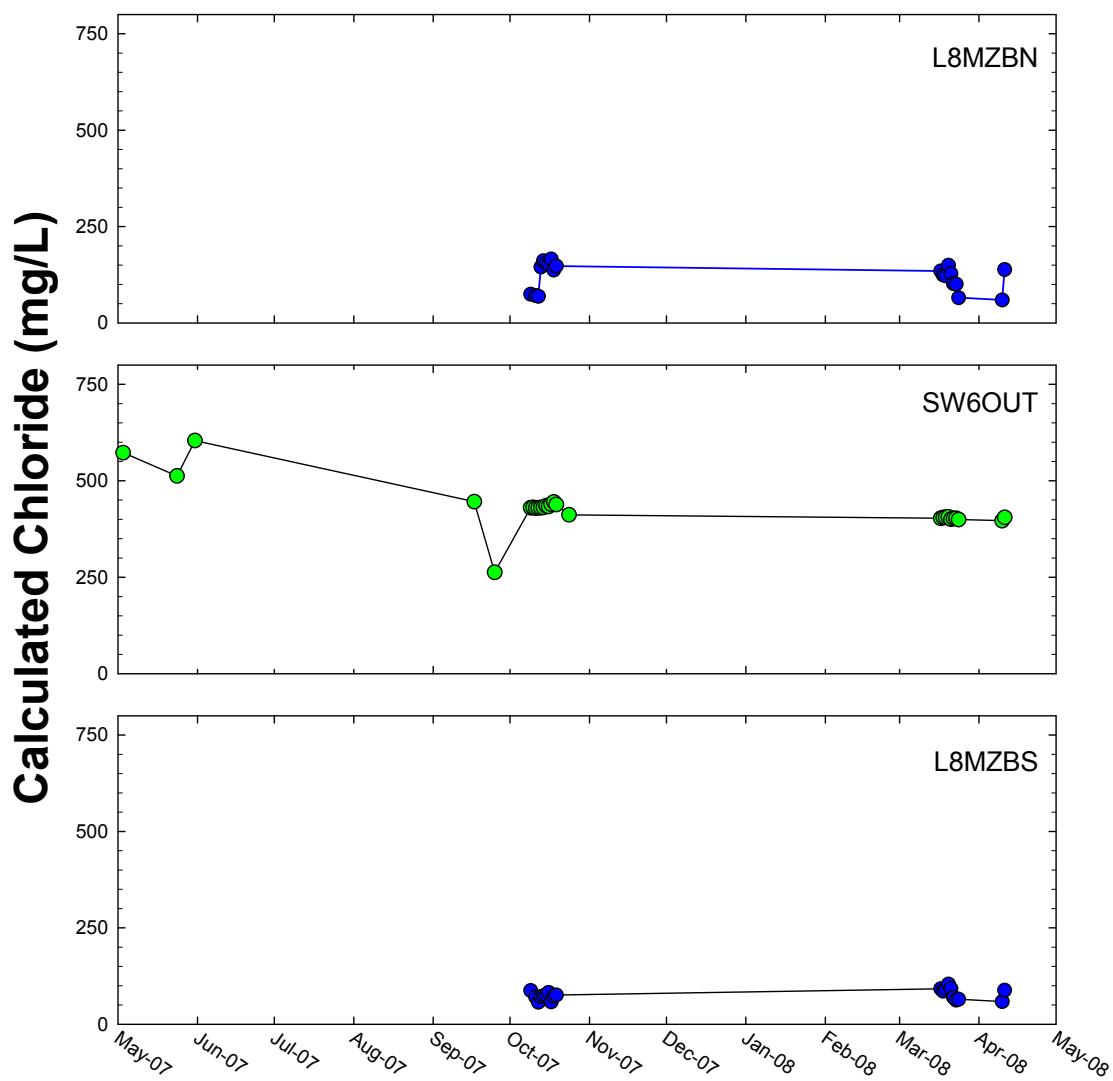
Calculated chloride concentrations are shown in **Table 3** and on **Figure 7**. Chlorides were calculated from the conductivity results by using the following equation:

$$\text{Chloride} = 0.218(\text{Conductivity}) - 47.2$$

This equation is specified in CERPRA Permit 0188365-008. Since chloride is derived from conductivity, the same scenarios for conductivity explained above apply to chloride. There is no Class III standard for chloride; however, there is a Class I standard (< 250 mg/L) which only applies to site SW-3 on the M canal. There were two occasions when the standard was exceeded at SW-3 in May 2007, which was related to the emergency order to move water from the reservoir to West Palm Beach's water supply. Under normal conditions, the high-chloride water in the reservoir does not significantly increase the chloride levels in the L-8 basin.



**Figure 6.** Time-series plot of conductivity levels at three structures and two mixing zone stations (L8MZBN and L8MZBS) during WY2008.



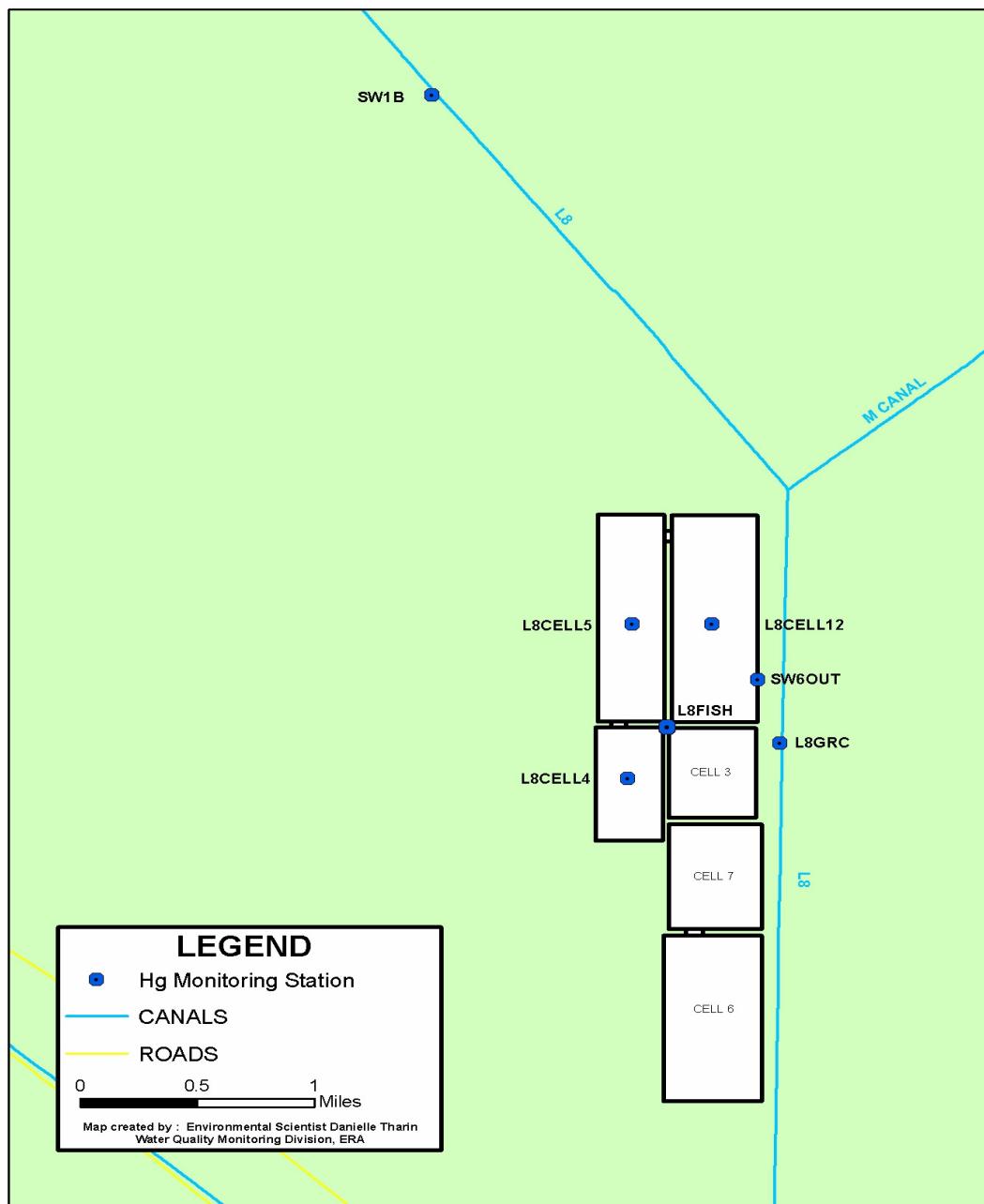
**Figure 7.** Time-series plot of calculated chloride levels at the outflow structure to the L-8 canal (SW-6OUT) and two mixing zone stations (L8MZBN and L8MZBS) located in the L-8 canal during WY2008.

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## MERCURY MONITORING

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Mercury analysis was performed on water and fish samples during WY2008 (**Figure 8**). Samples were collected in each cell and in the L-8 canal. Samples for ultra-trace mercury in water and mosquitofish (*Gambusia holbrooki*, small-bodied fish) were sampled quarterly. Large-bodied fish (sunfish, *Lepomis* spp., and largemouth bass) were collected in October 2007. The FDEP has a Class III water quality standard for ultra-trace total mercury (< 12 ng/L); however, there is no Class III ultra-trace methylmercury standard. There is also a USEPA recommended methyl mercury fish tissue criterion of 0.3 mg/kg for bass. Mercury concentrations in largemouth bass in WCA-1, 2, and 3 while having declined by up to 80 percent from the early 1990s to 1998, remain relatively high with a mean of 0.5 mg/kg. **Table 5** shows that all the samples collected WY2008 water and fish have results well below these standards.



**Figure 8.** L-8 Reservoir Project mercury sampling locations.

**Table 5.** Mercury results in water and fish.**Mercury Results in Water Samples**

FDEP Standard	Date	Ultra-trace Total Mercury ≤ 12	Ultra-trace Methyl Mercury None	Units ng/L
SW1B	5/9/2007	2.8	0.15	ng/L
	8/9/2007	5	0.48	ng/L
	11/28/2007	*	0.16	ng/L
	2/14/2008	3.5	0.1	ng/L
SW6OUT	5/9/2007	3.1	0.042	ng/L
	8/9/2007	3.3	0.16	ng/L
	11/28/2007	*	0.12	ng/L
	2/14/2008	0.93	0.096	ng/L

**Mercury Results in Mosquitofish**

FDEP Standard	Date	Ultra-trace Total Mercury None	Units
L8GRC	5/30/2007	0.021	mg/kg
	8/30/2007	0.036	mg/kg
	10/9/2007	0.031	mg/kg
	1/28/2008	0.021	mg/kg
L8CELL1/2	5/30/2007	0.027	mg/kg
	8/30/2007	0.08	mg/kg
	10/9/2007	0.074	mg/kg
	1/28/2008	0.051	mg/kg
L8CELL4	5/30/2007	0.018	mg/kg
	8/30/2007	0.043	mg/kg
	10/9/2007	0.03	mg/kg
	1/28/2008	0.025	mg/kg
L8CELL5	5/30/2007	0.018	mg/kg
	8/30/2007	0.054	mg/kg
	10/9/2007	0.068	mg/kg
	1/28/2008	0.027	mg/kg

**Mercury Results in Large Fish (Sunfish and Bass)**

Ultra-trace Total Mercury	Bass ≤ 0.3	N	Sunfish None	N	Units mg/kg
USEPA recommended MeHg fish tissue criterion					
L8GRC	10/2/2007	0.174	5	0.027	5 mg/kg
L8FISH	10/2/2007	0.112	5	0.04	5 mg/kg

L8GRC = Telemetry platform in L-8 Canal east of Cell 3

L8FISH = Composite of fish from all the cells

N = Number of fish

\* = Estimated value not accurate

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## **PESTICIDE MONITORING**

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Pesticides are monitored quarterly at the outflow site (SW-6OUT). Of the pesticides sampled, only atrazine and ametryn were detected at very low concentrations. Neither compound has a state standard, however, there is a proposed drinking water standard for atrazine of < 3 µg/L. The maximum value detected for atrazine was 0.19 µg/L and ametryn was 0.017 µg/L.

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## **WATER QUALITY CONCLUSIONS**

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Based on the information presented, it is the opinion of the SFWMD that no degradation in water quality has or will occur to the L-8 basin due to the operation of the L-8 Reservoir Project.

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## LITERATURE CITED

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- USEPA. 2001. Water Quality Criteria: Notice of Availability of Water Quality Criterion for the Protection of Human Health: Methylmercury. Washington, D.C. Available at <http://www.epa.gov/fedrgstr/EPA-WATER/2001/January/Day-08/w217.htm>, as of August 2008.
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# Attachment A:

## Water Quality Data

STATION_ID	DATE	TEST_NAME	VALUE	UNITS
SW1B	14-Feb-08	MERCURY, TOT, ULTRATRACE	3.5	ng/L
SW1B	09-Aug-07	MERCURY, TOT, ULTRATRACE	5	ng/L
SW1B	09-May-07	MERCURY, TOT, ULTRATRACE	2.8	ng/L
SW1B	09-Aug-07	METH MERCURY, TOT ULTRATR	0.48	ng/L
SW1B	14-Feb-08	METH MERCURY, TOT ULTRATR	0.1	ng/L
SW1B	09-May-07	METH MERCURY, TOT ULTRATR	0.15	ng/L
SW1B	28-Nov-07	METH MERCURY, TOT ULTRATR	0.16	ng/L
SW1B	09-Aug-07	SULFATE	21.8	mg/L
SW1B	09-May-07	SULFATE	98	mg/L
SW1B	28-Nov-07	SULFATE	4.4	mg/L
SW1B	13-Feb-08	SULFATE	8.1	mg/L
SW3	31-May-07	CHLORIDE	408	mg/L
SW3	24-May-07	CHLORIDE	434	mg/L
SW3	03-May-07	CHLORIDE	119	mg/L
SW3	18-Mar-08	DISSOLVED OXYGEN	5.21	mg/L
SW3	17-Oct-07	DISSOLVED OXYGEN	2.81	mg/L
SW3	10-Oct-07	DISSOLVED OXYGEN	3.39	mg/L
SW3	31-May-07	DISSOLVED OXYGEN	6.27	mg/L
SW3	24-May-07	DISSOLVED OXYGEN	6.4	mg/L
SW3	11-Apr-08	DISSOLVED OXYGEN	6.39	mg/L
SW3	03-May-07	DISSOLVED OXYGEN	5.76	mg/L
SW3	11-Apr-08	GROSS ALPHA	-2.6	PCI/L
SW3	03-May-07	GROSS ALPHA	2.6	PCI/L
SW3	17-Oct-07	GROSS ALPHA	-1.4	PCI/L
SW3	31-May-07	GROSS ALPHA	16.1	PCI/L
SW3	18-Mar-08	GROSS ALPHA	2.5	PCI/L
SW3	03-May-07	KJELDAHL NITROGEN, TOTAL	1.38	mg/L
SW3	24-May-07	KJELDAHL NITROGEN, TOTAL	1.37	mg/L
SW3	31-May-07	KJELDAHL NITROGEN, TOTAL	1.41	mg/L
SW3	10-Oct-07	KJELDAHL NITROGEN, TOTAL	1.11	mg/L
SW3	17-Oct-07	KJELDAHL NITROGEN, TOTAL	0.99	mg/L
SW3	18-Mar-08	KJELDAHL NITROGEN, TOTAL	0.87	mg/L

STATION_ID	DATE	TEST_NAME	VALUE	UNITS
SW3	11-Apr-08	KJELDAHL NITROGEN, TOTAL	1.37	mg/L
SW3	18-Mar-08	NITRATE+NITRITE-N	0.11	mg/L
SW3	17-Oct-07	NITRATE+NITRITE-N	0.009	mg/L
SW3	10-Oct-07	NITRATE+NITRITE-N	-0.005	mg/L
SW3	31-May-07	NITRATE+NITRITE-N	0.022	mg/L
SW3	24-May-07	NITRATE+NITRITE-N	0.034	mg/L
SW3	03-May-07	NITRATE+NITRITE-N	0.036	mg/L
SW3	11-Apr-08	NITRATE+NITRITE-N	0.065	mg/L
SW3	10-Oct-07	PH, FIELD	7.4	UNITS
SW3	11-Apr-08	PH, FIELD	8	UNITS
SW3	31-May-07	PH, FIELD	8.1	UNITS
SW3	17-Oct-07	PH, FIELD	7.5	UNITS
SW3	18-Mar-08	PH, FIELD	8	UNITS
SW3	03-May-07	PH, FIELD	7.9	UNITS
SW3	24-May-07	PH, FIELD	8	UNITS
SW3	11-Apr-08	PHOSPHATE, TOTAL AS P	0.052	mg/L
SW3	18-Mar-08	PHOSPHATE, TOTAL AS P	0.038	mg/L
SW3	17-Oct-07	PHOSPHATE, TOTAL AS P	0.09	mg/L
SW3	10-Oct-07	PHOSPHATE, TOTAL AS P	0.161	mg/L
SW3	24-May-07	PHOSPHATE, TOTAL AS P	0.084	mg/L
SW3	03-May-07	PHOSPHATE, TOTAL AS P	0.1	mg/L
SW3	31-May-07	PHOSPHATE, TOTAL AS P	0.083	mg/L
SW3	31-May-07	SP CONDUCTIVITY, FIELD	2270	µS/cm
SW3	11-Apr-08	SP CONDUCTIVITY, FIELD	827	µS/cm
SW3	17-Oct-07	SP CONDUCTIVITY, FIELD	337	µS/cm
SW3	03-May-07	SP CONDUCTIVITY, FIELD	800	µS/cm
SW3	24-May-07	SP CONDUCTIVITY, FIELD	2039	µS/cm
SW3	18-Mar-08	SP CONDUCTIVITY, FIELD	480	µS/cm
SW3	03-May-07	SULFATE	59	mg/L
SW3	24-May-07	SULFATE	154	mg/L
SW3	31-May-07	SULFATE	143	mg/L
SW3	10-Oct-07	SULFATE	15.8	mg/L
SW3	17-Oct-07	SULFATE	13.5	mg/L
SW3	18-Mar-08	SULFATE	11.6	mg/L
SW3	11-Apr-08	SULFATE	43.4	mg/L
SW3	11-Apr-08	TEMP	26.1	Deg C
SW3	18-Mar-08	TEMP	24	Deg C
SW3	17-Oct-07	TEMP	27.1	Deg C
SW3	31-May-07	TEMP	25.8	Deg C
SW3	24-May-07	TEMP	25.7	Deg C
SW3	03-May-07	TEMP	27.7	Deg C
SW3	10-Oct-07	TEMP	28.9	Deg C
SW6IN	10-Oct-07	DISSOLVED OXYGEN	3.01	mg/L
SW6IN	25-Sep-07	DISSOLVED OXYGEN	2.88	mg/L
SW6IN	11-Apr-08	DISSOLVED OXYGEN	4.27	mg/L
SW6IN	18-Mar-08	DISSOLVED OXYGEN	5.59	mg/L
SW6IN	26-Oct-07	DISSOLVED OXYGEN	3.36	mg/L

STATION_ID	DATE	TEST_NAME	VALUE	UNITS
SW6IN	24-Oct-07	DISSOLVED OXYGEN	1.28	mg/L
SW6IN	17-Sep-07	DISSOLVED OXYGEN	3.3	mg/L
SW6IN	17-Oct-07	DISSOLVED OXYGEN	2.8	mg/L
SW6IN	13-Feb-08	GROSS ALPHA	2.6	PCI/L
SW6IN	17-Sep-07	GROSS ALPHA	-2	PCI/L
SW6IN	13-Feb-08	KJELDAHL NITROGEN, TOTAL	0.91	mg/L
SW6IN	17-Sep-07	KJELDAHL NITROGEN, TOTAL	3.41	mg/L
SW6IN	25-Sep-07	KJELDAHL NITROGEN, TOTAL	2.74	mg/L
SW6IN	10-Oct-07	KJELDAHL NITROGEN, TOTAL	1.26	mg/L
SW6IN	26-Oct-07	KJELDAHL NITROGEN, TOTAL	1.34	mg/L
SW6IN	18-Mar-08	KJELDAHL NITROGEN, TOTAL	1.32	mg/L
SW6IN	11-Apr-08	KJELDAHL NITROGEN, TOTAL	1.21	mg/L
SW6IN	17-Oct-07	KJELDAHL NITROGEN, TOTAL	1.04	mg/L
SW6IN	24-Oct-07	NITRATE+NITRITE-N	0.036	mg/L
SW6IN	17-Oct-07	NITRATE+NITRITE-N	0.021	mg/L
SW6IN	10-Oct-07	NITRATE+NITRITE-N	0.069	mg/L
SW6IN	13-Feb-08	NITRATE+NITRITE-N	0.034	mg/L
SW6IN	25-Sep-07	NITRATE+NITRITE-N	0.503	mg/L
SW6IN	17-Sep-07	NITRATE+NITRITE-N	1.179	mg/L
SW6IN	18-Mar-08	NITRATE+NITRITE-N	0.027	mg/L
SW6IN	17-Sep-07	PH, FIELD	7.2	UNITS
SW6IN	24-Oct-07	PH, FIELD	7.5	UNITS
SW6IN	11-Apr-08	PH, FIELD	7.8	UNITS
SW6IN	18-Mar-08	PH, FIELD	8	UNITS
SW6IN	26-Oct-07	PH, FIELD	6.9	UNITS
SW6IN	10-Oct-07	PH, FIELD	7.5	UNITS
SW6IN	25-Sep-07	PH, FIELD	7.4	UNITS
SW6IN	17-Oct-07	PH, FIELD	7.5	UNITS
SW6IN	25-Sep-07	PHOSPHATE, TOTAL AS P	0.121	mg/L
SW6IN	11-Apr-08	PHOSPHATE, TOTAL AS P	0.026	mg/L
SW6IN	18-Mar-08	PHOSPHATE, TOTAL AS P	0.029	mg/L
SW6IN	13-Feb-08	PHOSPHATE, TOTAL AS P	0.051	mg/L
SW6IN	26-Oct-07	PHOSPHATE, TOTAL AS P	0.037	mg/L
SW6IN	17-Oct-07	PHOSPHATE, TOTAL AS P	0.042	mg/L
SW6IN	10-Oct-07	PHOSPHATE, TOTAL AS P	0.055	mg/L
SW6IN	17-Sep-07	PHOSPHATE, TOTAL AS P	0.153	mg/L
SW6IN	17-Sep-07	SP CONDUCTIVITY, FIELD	1114	µS/cm
SW6IN	25-Sep-07	SP CONDUCTIVITY, FIELD	653	µS/cm
SW6IN	17-Oct-07	SP CONDUCTIVITY, FIELD	533	µS/cm
SW6IN	26-Oct-07	SP CONDUCTIVITY, FIELD	641	µS/cm
SW6IN	18-Mar-08	SP CONDUCTIVITY, FIELD	645	µS/cm
SW6IN	11-Apr-08	SP CONDUCTIVITY, FIELD	624	µS/cm
SW6IN	24-Oct-07	SP CONDUCTIVITY, FIELD	560	µS/cm
SW6IN	10-Oct-07	SULFATE	25.1	mg/L
SW6IN	13-Feb-08	SULFATE	27.3	mg/L
SW6IN	17-Sep-07	SULFATE	61.6	mg/L
SW6IN	24-Oct-07	SULFATE	17	mg/L

STATION_ID	DATE	TEST_NAME	VALUE	UNITS
SW6IN	17-Oct-07	SULFATE	16.5	mg/L
SW6IN	25-Sep-07	SULFATE	56.6	mg/L
SW6IN	11-Apr-08	SULFATE	24.1	mg/L
SW6IN	18-Mar-08	SULFATE	30.1	mg/L
SW6IN	17-Oct-07	TEMP	25.5	Deg C
SW6IN	11-Apr-08	TEMP	25.8	Deg C
SW6IN	17-Sep-07	TEMP	29.9	Deg C
SW6IN	10-Oct-07	TEMP	28.3	Deg C
SW6IN	24-Oct-07	TEMP	27.6	Deg C
SW6IN	18-Mar-08	TEMP	22.9	Deg C
SW6IN	26-Oct-07	TEMP	26.2	Deg C
SW6IN	13-Feb-08	TEMP	20.7	Deg C
SW6IN	25-Sep-07	TEMP	26.8	Deg C
SW6OUT	17-May-07	AMETRYN	0.015	µg/L
SW6OUT	12-Sep-07	AMETRYN	0.017	µg/L
SW6OUT	17-Dec-07	AMETRYN	0.017	µg/L
SW6OUT	20-Mar-08	AMETRYN	0.014	µg/L
SW6OUT	17-May-07	ATRAZINE	0.19	µg/L
SW6OUT	20-Mar-08	ATRAZINE	0.19	µg/L
SW6OUT	12-Sep-07	ATRAZINE	0.17	µg/L
SW6OUT	17-Dec-07	ATRAZINE	0.18	µg/L
SW6OUT	03-May-07	CHLORIDE	586	mg/L
SW6OUT	24-May-07	CHLORIDE	601	mg/L
SW6OUT	31-May-07	CHLORIDE	623	mg/L
SW6OUT	17-Dec-07	DDD-P,P'	-0.0048	µg/L
SW6OUT	20-Mar-08	DDD-P,P'	-0.0048	µg/L
SW6OUT	20-Mar-08	DDE-P,P'	-0.004	µg/L
SW6OUT	17-Dec-07	DDE-P,P'	-0.004	µg/L
SW6OUT	17-Dec-07	DDT-P,P'	-0.006	µg/L
SW6OUT	20-Mar-08	DDT-P,P'	-0.006	µg/L
SW6OUT	12-Oct-07	DISSOLVED OXYGEN	7.9	mg/L
SW6OUT	31-May-07	DISSOLVED OXYGEN	6.29	mg/L
SW6OUT	17-Sep-07	DISSOLVED OXYGEN	4.5	mg/L
SW6OUT	25-Sep-07	DISSOLVED OXYGEN	4.77	mg/L
SW6OUT	10-Oct-07	DISSOLVED OXYGEN	6.15	mg/L
SW6OUT	17-Oct-07	DISSOLVED OXYGEN	5.46	mg/L
SW6OUT	24-Oct-07	DISSOLVED OXYGEN	4.89	mg/L
SW6OUT	11-Apr-08	DISSOLVED OXYGEN	6.76	mg/L
SW6OUT	17-Mar-08	DISSOLVED OXYGEN	9.43	mg/L
SW6OUT	03-May-07	DISSOLVED OXYGEN	6.68	mg/L
SW6OUT	24-May-07	DISSOLVED OXYGEN	6.51	mg/L
SW6OUT	18-Mar-08	DISSOLVED OXYGEN	7.25	mg/L
SW6OUT	31-May-07	GROSS ALPHA	26.2	PCI/L
SW6OUT	11-Apr-08	GROSS ALPHA	11.7	PCI/L
SW6OUT	18-Mar-08	GROSS ALPHA	15.7	PCI/L
SW6OUT	13-Feb-08	GROSS ALPHA	7.8	PCI/L
SW6OUT	10-Oct-07	KJELDAHL NITROGEN, TOTAL	1.07	mg/L

STATION_ID	DATE	TEST_NAME	VALUE	UNITS
SW6OUT	11-Apr-08	KJELDAHL NITROGEN, TOTAL	0.86	mg/L
SW6OUT	13-Feb-08	KJELDAHL NITROGEN, TOTAL	0.97	mg/L
SW6OUT	17-Oct-07	KJELDAHL NITROGEN, TOTAL	1.03	mg/L
SW6OUT	18-Mar-08	KJELDAHL NITROGEN, TOTAL	0.91	mg/L
SW6OUT	25-Sep-07	KJELDAHL NITROGEN, TOTAL	1.36	mg/L
SW6OUT	17-Sep-07	KJELDAHL NITROGEN, TOTAL	1.01	mg/L
SW6OUT	31-May-07	KJELDAHL NITROGEN, TOTAL	0.85	mg/L
SW6OUT	24-May-07	KJELDAHL NITROGEN, TOTAL	0.88	mg/L
SW6OUT	03-May-07	KJELDAHL NITROGEN, TOTAL	0.92	mg/L
SW6OUT	24-Oct-07	KJELDAHL NITROGEN, TOTAL	1.01	mg/L
SW6OUT	09-May-07	MERCURY, TOT, ULTRATRACE	3.1	ng/L
SW6OUT	09-Aug-07	MERCURY, TOT, ULTRATRACE	3.3	ng/L
SW6OUT	14-Feb-08	MERCURY, TOT, ULTRATRACE	0.93	ng/L
SW6OUT	14-Feb-08	METH MERCURY, TOT ULTRATR	0.096	ng/L
SW6OUT	28-Nov-07	METH MERCURY, TOT ULTRATR	0.12	ng/L
SW6OUT	09-May-07	METH MERCURY, TOT ULTRATR	0.042	ng/L
SW6OUT	09-Aug-07	METH MERCURY, TOT ULTRATR	0.16	ng/L
SW6OUT	17-Oct-07	NITRATE+NITRITE-N	0.25	mg/L
SW6OUT	11-Apr-08	NITRATE+NITRITE-N	0.187	mg/L
SW6OUT	31-May-07	NITRATE+NITRITE-N	0.007	mg/L
SW6OUT	17-Sep-07	NITRATE+NITRITE-N	0.08	mg/L
SW6OUT	25-Sep-07	NITRATE+NITRITE-N	0.231	mg/L
SW6OUT	13-Feb-08	NITRATE+NITRITE-N	0.186	mg/L
SW6OUT	24-May-07	NITRATE+NITRITE-N	-0.006	mg/L
SW6OUT	03-May-07	NITRATE+NITRITE-N	0.014	mg/L
SW6OUT	24-Oct-07	NITRATE+NITRITE-N	0.189	mg/L
SW6OUT	18-Mar-08	NITRATE+NITRITE-N	0.22	mg/L
SW6OUT	10-Oct-07	NITRATE+NITRITE-N	0.225	mg/L
SW6OUT	17-Sep-07	PH, FIELD	7.4	UNITS
SW6OUT	18-Mar-08	PH, FIELD	8	UNITS
SW6OUT	17-Mar-08	PH, FIELD	8	UNITS
SW6OUT	24-May-07	PH, FIELD	8.2	UNITS
SW6OUT	11-Apr-08	PH, FIELD	8.3	UNITS
SW6OUT	24-Oct-07	PH, FIELD	7	UNITS
SW6OUT	17-Oct-07	PH, FIELD	8.1	UNITS
SW6OUT	10-Oct-07	PH, FIELD	8.1	UNITS
SW6OUT	25-Sep-07	PH, FIELD	7.8	UNITS
SW6OUT	03-May-07	PH, FIELD	8.2	UNITS
SW6OUT	31-May-07	PH, FIELD	8.3	UNITS
SW6OUT	12-Oct-07	PH, FIELD	8	UNITS
SW6OUT	03-May-07	PHOSPHATE, TOTAL AS P	0.013	mg/L
SW6OUT	11-Apr-08	PHOSPHATE, TOTAL AS P	0.009	mg/L

STATION_ID	DATE	TEST_NAME	VALUE	UNITS
SW6OUT	25-Sep-07	PHOSPHATE, TOTAL AS P	0.037	mg/L
SW6OUT	17-Sep-07	PHOSPHATE, TOTAL AS P	0.019	mg/L
SW6OUT	31-May-07	PHOSPHATE, TOTAL AS P	0.022	mg/L
SW6OUT	18-Mar-08	PHOSPHATE, TOTAL AS P	0.01	mg/L
SW6OUT	13-Feb-08	PHOSPHATE, TOTAL AS P	0.022	mg/L
SW6OUT	24-Oct-07	PHOSPHATE, TOTAL AS P	0.017	mg/L
SW6OUT	17-Oct-07	PHOSPHATE, TOTAL AS P	0.017	mg/L
SW6OUT	24-May-07	PHOSPHATE, TOTAL AS P	0.023	mg/L
SW6OUT	10-Oct-07	PHOSPHATE, TOTAL AS P	0.014	mg/L
SW6OUT	20-Mar-08	SIMAZINE	-0.01	µg/L
SW6OUT	17-Dec-07	SIMAZINE	-0.01	µg/L
SW6OUT	12-Sep-07	SIMAZINE	-0.0095	µg/L
SW6OUT	17-May-07	SIMAZINE	-0.01	µg/L
SW6OUT	16-Oct-07	SP CONDUCTIVITY, FIELD	2205	µS/cm
SW6OUT	24-Oct-07	SP CONDUCTIVITY, FIELD	2105	µS/cm
SW6OUT	17-Mar-08	SP CONDUCTIVITY, FIELD	2064	µS/cm
SW6OUT	18-Oct-07	SP CONDUCTIVITY, FIELD	2257	µS/cm
SW6OUT	15-Oct-07	SP CONDUCTIVITY, FIELD	2212	µS/cm
SW6OUT	14-Oct-07	SP CONDUCTIVITY, FIELD	2194	µS/cm
SW6OUT	13-Oct-07	SP CONDUCTIVITY, FIELD	2191	µS/cm
SW6OUT	11-Oct-07	SP CONDUCTIVITY, FIELD	2186	µS/cm
SW6OUT	19-Oct-07	SP CONDUCTIVITY, FIELD	2228	µS/cm
SW6OUT	19-Mar-08	SP CONDUCTIVITY, FIELD	2076	µS/cm
SW6OUT	18-Mar-08	SP CONDUCTIVITY, FIELD	2074	µS/cm
SW6OUT	12-Oct-07	SP CONDUCTIVITY, FIELD	2189	µS/cm
SW6OUT	17-Oct-07	SP CONDUCTIVITY, FIELD	2233	µS/cm
SW6OUT	10-Oct-07	SP CONDUCTIVITY, FIELD	2193	µS/cm
SW6OUT	25-Sep-07	SP CONDUCTIVITY, FIELD	1422	µS/cm
SW6OUT	17-Sep-07	SP CONDUCTIVITY, FIELD	2263	µS/cm
SW6OUT	31-May-07	SP CONDUCTIVITY, FIELD	2988	µS/cm
SW6OUT	24-May-07	SP CONDUCTIVITY, FIELD	2568	µS/cm
SW6OUT	03-May-07	SP CONDUCTIVITY, FIELD	2845	µS/cm
SW6OUT	11-Apr-08	SP CONDUCTIVITY, FIELD	2076	µS/cm
SW6OUT	21-Mar-08	SP CONDUCTIVITY, FIELD	2052	µS/cm
SW6OUT	22-Mar-08	SP CONDUCTIVITY, FIELD	2063	µS/cm
SW6OUT	23-Mar-08	SP CONDUCTIVITY, FIELD	2064	µS/cm
SW6OUT	24-Mar-08	SP CONDUCTIVITY, FIELD	2048	µS/cm
SW6OUT	10-Apr-08	SP CONDUCTIVITY, FIELD	2036	µS/cm
SW6OUT	09-Oct-07	SP CONDUCTIVITY, FIELD	2189	µS/cm
SW6OUT	20-Mar-08	SP CONDUCTIVITY, FIELD	2080	µS/cm
SW6OUT	28-Nov-07	SULFATE	163	mg/L
SW6OUT	09-May-07	SULFATE	195	mg/L
SW6OUT	03-May-07	SULFATE	205	mg/L
SW6OUT	31-May-07	SULFATE	218	mg/L
SW6OUT	09-Aug-07	SULFATE	206	mg/L
SW6OUT	17-Sep-07	SULFATE	186	mg/L
SW6OUT	25-Sep-07	SULFATE	146	mg/L

STATION_ID	DATE	TEST_NAME	VALUE	UNITS
SW6OUT	10-Oct-07	SULFATE	159	mg/L
SW6OUT	24-May-07	SULFATE	210	mg/L
SW6OUT	24-Oct-07	SULFATE	160	mg/L
SW6OUT	13-Feb-08	SULFATE	132	mg/L
SW6OUT	13-Feb-08	SULFATE	142	mg/L
SW6OUT	18-Mar-08	SULFATE	157	mg/L
SW6OUT	11-Apr-08	SULFATE	155	mg/L
SW6OUT	17-Oct-07	SULFATE	166	mg/L
SW6OUT	11-Apr-08	TEMP	25	Deg C
SW6OUT	12-Oct-07	TEMP	28	Deg C
SW6OUT	18-Mar-08	TEMP	22.3	Deg C
SW6OUT	13-Feb-08	TEMP	20.4	Deg C
SW6OUT	24-Oct-07	TEMP	27.9	Deg C
SW6OUT	17-Oct-07	TEMP	27.1	Deg C
SW6OUT	10-Oct-07	TEMP	27.3	Deg C
SW6OUT	25-Sep-07	TEMP	27.6	Deg C
SW6OUT	17-Sep-07	TEMP	28.9	Deg C
SW6OUT	31-May-07	TEMP	24.9	Deg C
SW6OUT	24-May-07	TEMP	24.7	Deg C
SW6OUT	22-Mar-08	TEMP	22.1	Deg C
SW6OUT	03-May-07	TEMP	25.8	Deg C
SW6OUT	17-Mar-08	TEMP	23.2	Deg C
L8MZBN	17-Mar-08	DISSOLVED OXYGEN	6.41	mg/L
L8MZBN	12-Oct-07	DISSOLVED OXYGEN	3.61	mg/L
L8MZBN	17-Mar-08	PH, FIELD	7.7	UNITS
L8MZBN	12-Oct-07	PH, FIELD	7.3	UNITS
L8MZBN	15-Oct-07	SP CONDUCTIVITY, FIELD	930	µS/cm
L8MZBN	11-Oct-07	SP CONDUCTIVITY, FIELD	543	µS/cm
L8MZBN	22-Mar-08	SP CONDUCTIVITY, FIELD	685	µS/cm
L8MZBN	17-Oct-07	SP CONDUCTIVITY, FIELD	978	µS/cm
L8MZBN	11-Apr-08	SP CONDUCTIVITY, FIELD	851	µS/cm
L8MZBN	09-Oct-07	SP CONDUCTIVITY, FIELD	560	µS/cm
L8MZBN	13-Oct-07	SP CONDUCTIVITY, FIELD	883	µS/cm
L8MZBN	16-Oct-07	SP CONDUCTIVITY, FIELD	913	µS/cm
L8MZBN	23-Mar-08	SP CONDUCTIVITY, FIELD	677	µS/cm
L8MZBN	24-Mar-08	SP CONDUCTIVITY, FIELD	518	µS/cm
L8MZBN	14-Oct-07	SP CONDUCTIVITY, FIELD	956	µS/cm
L8MZBN	10-Apr-08	SP CONDUCTIVITY, FIELD	489	µS/cm
L8MZBN	18-Mar-08	SP CONDUCTIVITY, FIELD	788	µS/cm
L8MZBN	12-Oct-07	SP CONDUCTIVITY, FIELD	534	µS/cm
L8MZBN	19-Oct-07	SP CONDUCTIVITY, FIELD	892	µS/cm
L8MZBN	17-Mar-08	SP CONDUCTIVITY, FIELD	834	µS/cm
L8MZBN	19-Mar-08	SP CONDUCTIVITY, FIELD	778	µS/cm
L8MZBN	21-Mar-08	SP CONDUCTIVITY, FIELD	804	µS/cm
L8MZBN	20-Mar-08	SP CONDUCTIVITY, FIELD	903	µS/cm
L8MZBN	18-Oct-07	SP CONDUCTIVITY, FIELD	847	µS/cm
L8MZBN	12-Oct-07	TEMP	27.6	µS/cm

STATION_ID	DATE	TEST_NAME	VALUE	UNITS
L8MZBN	17-Mar-08	TEMP	24	µS/cm
L8MZBN	22-Mar-08	TEMP	22	µS/cm
L8MZBS	12-Oct-07	DISSOLVED OXYGEN	4.18	µS/cm
L8MZBS	17-Mar-08	DISSOLVED OXYGEN	6.77	µS/cm
L8MZBS	12-Oct-07	PH, FIELD	7.3	µS/cm
L8MZBS	17-Mar-08	PH, FIELD	7.5	µS/cm
L8MZBS	18-Mar-08	SP CONDUCTIVITY, FIELD	611	µS/cm
L8MZBS	10-Apr-08	SP CONDUCTIVITY, FIELD	486	µS/cm
L8MZBS	11-Apr-08	SP CONDUCTIVITY, FIELD	621	µS/cm
L8MZBS	15-Oct-07	SP CONDUCTIVITY, FIELD	566	µS/cm
L8MZBS	17-Oct-07	SP CONDUCTIVITY, FIELD	482	µS/cm
L8MZBS	16-Oct-07	SP CONDUCTIVITY, FIELD	594	µS/cm
L8MZBS	18-Oct-07	SP CONDUCTIVITY, FIELD	550	µS/cm
L8MZBS	13-Oct-07	SP CONDUCTIVITY, FIELD	546	µS/cm
L8MZBS	19-Oct-07	SP CONDUCTIVITY, FIELD	565	µS/cm
L8MZBS	12-Oct-07	SP CONDUCTIVITY, FIELD	480	µS/cm
L8MZBS	09-Oct-07	SP CONDUCTIVITY, FIELD	617	µS/cm
L8MZBS	14-Oct-07	SP CONDUCTIVITY, FIELD	555	µS/cm
L8MZBS	21-Mar-08	SP CONDUCTIVITY, FIELD	641	µS/cm
L8MZBS	20-Mar-08	SP CONDUCTIVITY, FIELD	695	µS/cm
L8MZBS	22-Mar-08	SP CONDUCTIVITY, FIELD	538	µS/cm
L8MZBS	11-Oct-07	SP CONDUCTIVITY, FIELD	539	µS/cm
L8MZBS	23-Mar-08	SP CONDUCTIVITY, FIELD	505	µS/cm
L8MZBS	24-Mar-08	SP CONDUCTIVITY, FIELD	514	µS/cm
L8MZBS	17-Mar-08	SP CONDUCTIVITY, FIELD	640	µS/cm
L8MZBS	19-Mar-08	SP CONDUCTIVITY, FIELD	640	µS/cm
L8MZBS	22-Mar-08	TEMP	22.2	Deg C
L8MZBS	17-Mar-08	TEMP	24	Deg C
L8MZBS	12-Oct-07	TEMP	27.5	Deg C

## Attachment B: Pump Operations and Stage Data

DATE STARTED	DATE ENDED	INFLOW/OUTFLOW	SOURCE WATER	DESTINATION
4/27/2007	4/29/2007	OUTFLOW	Unknown if this was EO, no mixing required. EO signed 4/23/07.	City WPB
Apr-07	May-07	<b>EO</b> - outflow, pump turned on	pits	1. City WPB PS2 - Under Emergency Operation Order for drought relief; 2. Fire suppression for Loxahatchee canals
9/14/2007	9/25/2007	<b>inflow</b>	S5AS (EAA water)	pits
10/12/2007	10/19/2007	<b>outflow</b> , pump turned on	S5AS (mixing water)	Lake Okeechobee
10/19/2007	10/20/2007	<b>inflow</b>	regional rain?	pits
2/12/2008	2/13/2008	<b>inflow</b>	Canal (C51, L8), rain?	pits
3/17/2008	3/23/08 (~1630 hrs)	<b>outflow</b> , pump turned on	S5AS (mixing water)	Lake Okeechobee
4/10/2008	04/11/08 (late afternoon, pump had to be shut down, overheating)	<b>outflow</b> , pump turned on	S5AS (mixing water)	Lake Okeechobee? (Control 2 pumping also)
5/13/2008 TWO ADD'L PUMPS ADDED	5/23/2008	<b>outflow</b> , pumps turned on	none <b>EMERGENCY ORDER</b>	S5A WEST OPEN - C51 TO WEST. CITY WPB STARTED PUMPING 5/16, S5AW CLOSED
5/27/2008 THREE PUMPS	6/12/2008	<b>outflow</b> , pumps turned on. Stopped pumping for memorial day weekend as rain was expected	none <b>EMERGENCY ORDER</b>	S5A WEST OPEN - C51 TO WEST & CITY WPB PUMPING. S155A backpumping. 6/2 - S5AS open.
7/21/2008 THREE PUMPS	x/xx/2008	<b>outflow</b> , pumps turned on.CERPRA permit	S5AS (mixing water)	Lake Okeechobee

**Average Daily Stage from Hourly Data Logger NGVD**

Date	Cell 7	Cell 3	Cell 2	Rain at Cell 7
8/28/2007	1.08			0.00
8/29/2007	1.12			0.00
8/30/2007	1.17			0.00
8/31/2007	1.23		4.96	0.00
9/1/2007	1.28	1.57	4.95	0.00
9/2/2007	1.33	1.62	4.96	0.00
9/3/2007	1.36	1.69	4.96	0.03
9/4/2007	1.41	1.77	4.97	0.05
9/5/2007	1.46	1.84	4.96	0.01
9/6/2007	1.50	1.90	4.95	0.00
9/7/2007	1.54	1.96	4.94	0.04
9/8/2007	1.59	2.05	4.95	0.25
9/9/2007	1.63	2.11	4.94	0.02
9/10/2007	1.67	2.17	4.94	0.06
9/11/2007	1.72	2.23	4.94	0.01
9/12/2007	1.77	2.29	4.96	0.06
9/13/2007	1.82	2.36	4.98	0.01
9/14/2007	1.86	2.44	5.13	0.68
9/15/2007	1.92	2.56	6.18	0.01
9/16/2007	1.98	2.64	6.65	0.00
9/17/2007	2.04	2.74	6.99	0.41
9/18/2007	2.13	2.90	7.37	0.70
9/19/2007	2.20	3.01	8.45	0.08
9/20/2007	2.25	3.12	8.77	0.00
9/21/2007	2.29	3.24	9.05	0.47
9/22/2007	2.38	3.39	9.60	0.05
9/23/2007	2.43	3.54	10.84	0.58
9/24/2007	2.54	3.76	12.01	0.64
9/25/2007	2.65	3.96	12.90	0.35
9/26/2007	2.73	4.15	13.00	0.06
9/27/2007	2.79	4.32	12.94	0.01
9/28/2007	2.85	4.49	12.88	0.00
9/29/2007	2.91	4.66	12.83	0.23
9/30/2007	3.04	4.88	12.84	0.77
10/1/2007	3.15	5.06	12.81	2.03
10/2/2007	3.36	5.38	12.92	0.28
10/3/2007	3.45	5.54	12.89	0.12
10/4/2007	3.53	5.69	12.86	0.02
10/5/2007	3.61	5.84	12.81	0.48
10/6/2007	3.72	6.00	12.81	0.11
10/7/2007	3.79	6.14	12.78	0.00
10/8/2007	3.86	6.28	12.75	0.38
10/9/2007	3.92	6.39	12.71	0.00
10/10/2007	3.98	6.51	12.67	0.00
10/11/2007	4.04	6.62	12.63	0.00
10/12/2007	4.10	6.72	12.56	0.01

**Average Daily Stage from Hourly Data Logger NGVD**

Date	Cell 7	Cell 3	Cell 2	Rain at Cell 7
10/13/2007	4.15	6.81	12.25	0.00
10/14/2007	4.20	6.89	11.88	0.00
10/15/2007	4.24	6.96	11.50	0.00
10/16/2007	4.29	7.03	11.18	0.05
10/17/2007	4.37	7.11	10.86	0.23
10/18/2007	4.44	7.18	10.54	0.00
10/19/2007	4.51	7.24	10.39	1.06
10/20/2007	4.64	7.42	11.60	0.11
10/21/2007	4.70	7.50	11.76	0.00
10/22/2007	4.76	7.56	11.74	0.01
10/23/2007	4.82	7.63	11.72	0.00
10/24/2007	4.87	7.70	11.71	0.49
10/25/2007	4.96	7.82	11.77	0.22
10/26/2007	5.05	7.91	11.76	0.71
10/27/2007	5.13	7.99	11.76	0.00
10/28/2007	5.18	8.03	11.74	0.01
10/29/2007	5.23	8.08	11.73	0.11
10/30/2007	5.28	8.14	11.69	0.06
10/31/2007	5.33	8.19	11.66	0.29
11/1/2007	5.41	8.25	11.66	0.27
11/2/2007	5.46	8.31	11.64	0.02
11/3/2007	5.49	8.36	11.60	0.00
11/4/2007	5.52	8.39	11.56	0.00
11/5/2007	5.55	8.42	11.52	0.00
11/6/2007	5.58	8.45	11.49	0.00
11/7/2007	5.62	8.48	11.46	0.00
11/8/2007	5.64	8.51	11.42	0.00
11/9/2007	5.67	8.53	11.37	0.00
11/10/2007	5.71	8.56	11.34	0.00
11/11/2007	5.74	8.58	11.30	0.00
11/12/2007	5.78	8.61	11.28	0.01
11/13/2007	5.83	8.66	11.28	0.21
11/14/2007	5.89	8.71	11.29	0.18
11/15/2007	5.94	8.74	11.27	0.00
11/16/2007	5.96	8.76	11.23	0.00
11/17/2007	5.98	8.76	11.17	0.00
11/18/2007	6.02	8.79	11.15	0.00
11/19/2007	6.06	8.81	11.14	0.00
11/20/2007	6.10	8.84	11.12	0.00
11/21/2007	6.14	8.86	11.10	0.00
11/22/2007	6.19	8.89	11.09	0.00
11/23/2007	6.23	8.91	11.08	0.00
11/24/2007	6.30	8.94	11.07	0.28
11/25/2007	6.39	8.98	11.06	0.01
11/26/2007	6.43	9.01	11.06	0.00
11/27/2007	6.48	9.03	11.06	0.18
11/28/2007	6.53	9.08	11.08	0.15

**Average Daily Stage from Hourly Data Logger NGVD**

Date	Cell 7	Cell 3	Cell 2	Rain at Cell 7
11/29/2007	6.58	9.12	11.10	0.01
11/30/2007	6.62	9.14	11.09	0.00
12/1/2007	6.65	9.16	11.09	0.06
12/2/2007	6.70	9.19	11.09	0.01
12/3/2007	6.74	9.21	11.08	0.01
12/4/2007	6.76	9.22	11.07	0.00
12/5/2007	6.78	9.23	11.05	0.00
12/6/2007	6.80	9.23	11.02	0.00
12/7/2007	6.83	9.25	11.01	0.01
12/8/2007	6.87	9.26	11.00	0.00
12/9/2007	6.90	9.28	10.99	0.00
12/10/2007	6.93	9.29	10.98	0.00
12/11/2007	6.96	9.30	10.97	0.01
12/12/2007	6.99	9.31	10.96	0.00
12/13/2007	7.02	9.33	10.96	0.29
12/14/2007	7.22	9.49	11.11	1.88
12/15/2007	7.29	9.55	12.15	0.00
12/16/2007	7.34	9.60	12.46	0.12
12/17/2007	7.35	9.63	12.40	0.01
12/18/2007	7.34	9.65	12.34	0.00
12/19/2007	7.37	9.68	12.30	0.00
12/20/2007	7.40	9.71	12.28	0.00
12/21/2007	7.43	9.77	12.26	0.01
12/22/2007	7.45	9.80	N/A	0.00
12/23/2007	7.49	9.83	N/A	0.01
12/24/2007	7.52	9.87	N/A	0.00
12/25/2007	7.56	9.91	N/A	0.06
12/26/2007	7.60	9.94	N/A	0.00
12/27/2007	7.64	9.97	N/A	0.01
12/28/2007	7.68	10.00	12.10	0.00
12/29/2007	7.72	10.03	12.09	0.00
12/30/2007	7.75	10.05	12.07	0.01
12/31/2007	7.79	10.08	12.06	0.00
1/1/2008	7.81	10.11	12.04	0.00
1/2/2008	7.78	10.10	11.99	0.01
1/3/2008	7.73	10.06	11.89	0.00
1/4/2008	7.73	10.06	11.84	0.19
1/5/2008	7.76	10.09	11.82	0.02
1/6/2008	7.79	10.11	11.80	0.00
1/7/2008	7.83	10.13	11.79	0.00
1/8/2008	7.86	10.15	11.77	0.00
1/9/2008	7.89	10.17	11.76	0.01
1/10/2008	7.93	10.19	11.75	0.02
1/11/2008	7.97	10.21	11.73	0.01
1/12/2008	8.01	10.23	11.72	0.00
1/13/2008	8.04	10.26	11.73	0.42
1/14/2008	8.06	10.30	11.74	0.00

**Average Daily Stage from Hourly Data Logger NGVD**

Date	Cell 7	Cell 3	Cell 2	Rain at Cell 7
1/15/2008	8.06	10.30	11.71	0.00
1/16/2008	8.07	10.30	11.67	0.00
1/17/2008	8.10	10.31	11.65	0.01
1/18/2008	8.14	10.33	11.65	0.00
1/19/2008	8.19	10.35	11.64	0.01
1/20/2008	8.22	10.38	11.65	0.26
1/21/2008	8.22	10.37	11.61	0.03
1/22/2008	8.25	10.39	11.60	0.65
1/23/2008	8.35	10.45	11.63	0.11
1/24/2008	8.40	10.47	11.64	0.04
1/25/2008	8.41	10.48	11.63	0.00
1/26/2008	8.43	10.48	11.61	0.00
1/27/2008	8.46	10.49	11.59	0.01
1/28/2008	8.46	10.49	11.57	0.00
1/29/2008	8.48	10.49	11.54	0.00
1/30/2008	8.51	10.49	11.53	0.00
1/31/2008	8.53	10.50	11.52	0.01
2/1/2008	8.56	10.51	11.50	0.00
2/2/2008	8.58	10.52	11.50	0.01
2/3/2008	8.61	10.53	11.49	0.00
2/4/2008	8.64	10.53	11.48	0.02
2/5/2008	8.67	10.54	11.47	0.00
2/6/2008	8.71	10.55	11.46	0.00
2/7/2008	8.74	10.56	11.47	0.00
2/8/2008	8.76	10.56	11.46	0.00
2/9/2008	8.78	10.58	11.46	0.40
2/10/2008	8.81	10.60	11.49	0.01
2/11/2008	8.80	10.59	11.45	0.01
2/12/2008	8.83	10.59	11.62	0.46
2/13/2008	9.08	10.83	12.82	1.73
2/14/2008	9.14	10.89	12.96	0.12
2/15/2008	9.14	10.92	12.93	0.09
2/16/2008	9.17	10.94	12.91	0.01
2/17/2008	9.21	10.97	12.89	0.00
2/18/2008	9.27	11.00	12.88	0.00
2/19/2008	9.27	11.03	12.87	0.01
2/20/2008	9.25	11.05	12.84	0.00
2/21/2008	9.28	11.08	12.84	0.79
2/22/2008	9.31	11.13	12.84	0.00
2/23/2008	9.34	11.15	12.84	0.00
2/24/2008	9.37	11.19	12.83	0.44
2/25/2008	9.40	11.22	12.81	0.00
2/26/2008	9.43	11.24	12.81	0.00
2/27/2008	9.46	11.28	12.82	0.38
2/28/2008	9.49	11.28	12.77	0.00
2/29/2008	9.52	11.27	12.73	0.00
3/1/2008	9.52	11.31	12.71	0.00

**Average Daily Stage from Hourly Data Logger NGVD**

Date	Cell 7	Cell 3	Cell 2	Rain at Cell 7
3/2/2008	9.57	11.34	12.68	0.00
3/3/2008	9.61	11.37	12.66	0.00
3/4/2008	9.66	11.40	12.64	0.00
3/5/2008	9.70	11.43	12.64	0.00
3/6/2008	9.75	11.46	12.66	0.00
3/7/2008	9.79	11.49	12.73	0.00
3/8/2008	9.84	11.52	12.77	0.00
3/9/2008	9.88	11.56	12.79	0.00
3/10/2008	9.93	11.55	12.74	0.00
3/11/2008	9.97	11.57	12.71	0.75
3/12/2008	10.01	11.65	12.75	0.00
3/13/2008	10.02	11.66	12.79	0.00
3/14/2008	10.03	11.67	12.78	0.00
3/15/2008	10.05	11.67	12.76	0.00
3/16/2008	10.07	11.69	12.76	0.00
3/17/2008	10.07	11.70	12.71	0.00
3/18/2008	10.07	11.68	12.42	0.00
3/19/2008	10.08	11.67	12.07	0.00
3/20/2008	10.10	11.66	11.76	0.19
3/21/2008	10.11	11.65	11.55	0.00
3/22/2008	10.13	11.63	N/A	0.58
3/23/2008	10.25	11.72	N/A	1.35
3/24/2008	10.30	11.73	N/A	0.00
3/25/2008	10.29	11.68	N/A	0.00
3/26/2008	10.29	11.62	N/A	0.00
3/27/2008	10.30	11.59	N/A	0.00
3/28/2008	10.31	11.57	N/A	0.10
3/29/2008	10.33	11.54	N/A	0.00
3/30/2008	10.35	11.52	N/A	0.00
3/31/2008	10.39	11.53	10.93	0.50
4/1/2008	10.42	11.51	10.95	0.00
4/2/2008	10.44	11.49	10.96	0.03
4/3/2008	10.44	11.47	10.97	0.00
4/4/2008	10.47	11.45	10.96	0.00
4/5/2008	10.48	11.42	11.03	0.00
4/6/2008	10.55	11.45	N/A	1.01
4/7/2008	10.69	11.58	N/A	1.54
4/8/2008	10.71	11.57	11.22	0.00
4/9/2008	10.72	11.55	11.22	0.00
4/10/2008	10.72	11.52	11.20	0.00
4/11/2008	10.73	11.50	10.99	0.00
4/12/2008	10.75	11.48	10.95	0.00
4/13/2008	10.77	11.47	10.95	0.56
4/14/2008	10.80	11.47	N/A	0.00
4/15/2008	10.76	11.41	10.90	0.00
4/16/2008	10.74	11.35	10.88	0.00
4/17/2008	10.73	11.31	10.86	0.00

**Average Daily Stage from Hourly Data Logger NGVD**

Date	Cell 7	Cell 3	Cell 2	Rain at Cell 7
4/18/2008	10.73	11.28	10.85	0.00
4/19/2008	10.74	11.26	10.86	0.00
4/20/2008	10.75	11.24	10.86	0.05
4/21/2008	10.76	11.23	N/A	0.00
4/22/2008	10.76	11.20	10.86	0.00
4/23/2008	10.76	11.18	10.86	0.00
4/24/2008	10.76	11.15	10.85	0.00
4/25/2008	10.77	11.13	10.85	0.00
4/26/2008	10.77	11.11	10.84	0.00
4/27/2008	10.77	11.08	10.84	0.00
4/28/2008	10.77	11.06	10.84	0.04
4/29/2008	10.77	11.05	10.85	0.00
4/30/2008	10.77	11.03	10.83	0.00

**Time-Series Data**

<b>Station</b>	<b>DBKEY</b>	<b>Daily Date</b>	<b>Data Value Code</b>	<b>Revision Date</b>
L8GRC	OT897	01-MAY-2007	11.71 E	21-MAY-2007
L8GRC	OT897	02-MAY-2007	11.54 E	21-MAY-2007
L8GRC	OT897	03-MAY-2007	11.52 E	21-MAY-2007
L8GRC	OT897	04-MAY-2007	11.82 E	21-MAY-2007
L8GRC	OT897	05-MAY-2007	12.15 E	21-MAY-2007
L8GRC	OT897	06-MAY-2007	12.31 E	21-MAY-2007
L8GRC	OT897	07-MAY-2007	12.60 E	21-MAY-2007
L8GRC	OT897	08-MAY-2007	12.72 E	21-MAY-2007
L8GRC	OT897	09-MAY-2007	12.74 E	21-MAY-2007
L8GRC	OT897	10-MAY-2007	12.77 E	21-MAY-2007
L8GRC	OT897	11-MAY-2007	12.82 E	21-MAY-2007
L8GRC	OT897	12-MAY-2007	12.87 E	21-MAY-2007
L8GRC	OT897	13-MAY-2007	12.92 E	21-MAY-2007
L8GRC	OT897	14-MAY-2007	13.06 E	21-MAY-2007
L8GRC	OT897	15-MAY-2007	13.28 E	21-MAY-2007
L8GRC	OT897	16-MAY-2007	13.72 E	06-JUN-2007
L8GRC	OT897	17-MAY-2007	15.01 E	06-JUN-2007
L8GRC	OT897	18-MAY-2007	14.26 E	06-JUN-2007
L8GRC	OT897	19-MAY-2007	13.41	04-JUN-2007
L8GRC	OT897	20-MAY-2007	13.25	04-JUN-2007
L8GRC	OT897	21-MAY-2007	13.27 E	04-JUN-2007
L8GRC	OT897	22-MAY-2007	13.30 E	04-JUN-2007
L8GRC	OT897	23-MAY-2007	13.34	04-JUN-2007
L8GRC	OT897	24-MAY-2007	13.53	04-JUN-2007
L8GRC	OT897	25-MAY-2007	13.61	04-JUN-2007
L8GRC	OT897	26-MAY-2007	13.22	04-JUN-2007
L8GRC	OT897	27-MAY-2007	12.85	04-JUN-2007
L8GRC	OT897	28-MAY-2007	12.79	04-JUN-2007
L8GRC	OT897	29-MAY-2007	12.81	06-JUN-2007
L8GRC	OT897	30-MAY-2007	12.64	06-JUN-2007
L8GRC	OT897	31-MAY-2007	12.84	06-JUN-2007
L8GRC	OT897	01-JUN-2007	12.95	06-JUN-2007
L8GRC	OT897	02-JUN-2007	13.87	19-JUN-2007
L8GRC	OT897	03-JUN-2007	14.22	19-JUN-2007
L8GRC	OT897	04-JUN-2007	14.33	19-JUN-2007
L8GRC	OT897	05-JUN-2007	14.35	19-JUN-2007
L8GRC	OT897	06-JUN-2007	14.56	19-JUN-2007
L8GRC	OT897	07-JUN-2007	14.17	19-JUN-2007
L8GRC	OT897	08-JUN-2007	12.66	19-JUN-2007
L8GRC	OT897	09-JUN-2007	11.91	19-JUN-2007
L8GRC	OT897	10-JUN-2007	11.48	19-JUN-2007
L8GRC	OT897	11-JUN-2007	11.39	19-JUN-2007
L8GRC	OT897	12-JUN-2007	11.13	19-JUN-2007
L8GRC	OT897	13-JUN-2007	11.17	19-JUN-2007
L8GRC	OT897	14-JUN-2007	11.72	19-JUN-2007
L8GRC	OT897	15-JUN-2007	11.42	28-JUN-2007

**Time-Series Data**

<b>Station</b>	<b>DBKEY</b>	<b>Daily Date</b>	<b>Data Value Code</b>	<b>Revision Date</b>
L8GRC	OT897	16-JUN-2007	11.00	28-JUN-2007
L8GRC	OT897	17-JUN-2007	11.20	28-JUN-2007
L8GRC	OT897	18-JUN-2007	11.68	28-JUN-2007
L8GRC	OT897	19-JUN-2007	12.56	28-JUN-2007
L8GRC	OT897	20-JUN-2007	13.68	28-JUN-2007
L8GRC	OT897	21-JUN-2007	13.80	28-JUN-2007
L8GRC	OT897	22-JUN-2007	13.07	28-JUN-2007
L8GRC	OT897	23-JUN-2007	11.91	28-JUN-2007
L8GRC	OT897	24-JUN-2007	11.41	28-JUN-2007
L8GRC	OT897	25-JUN-2007	11.32	10-JUL-2007
L8GRC	OT897	26-JUN-2007	11.07	10-JUL-2007
L8GRC	OT897	27-JUN-2007	11.09	10-JUL-2007
L8GRC	OT897	28-JUN-2007	11.16	10-JUL-2007
L8GRC	OT897	29-JUN-2007	11.36	10-JUL-2007
L8GRC	OT897	30-JUN-2007	11.37	10-JUL-2007
L8GRC	OT897	01-JUL-2007	11.41	10-JUL-2007
L8GRC	OT897	02-JUL-2007	11.50 E	24-SEP-2007
L8GRC	OT897	03-JUL-2007	12.25 E	24-SEP-2007
L8GRC	OT897	04-JUL-2007	13.04 E	24-SEP-2007
L8GRC	OT897	05-JUL-2007	13.52 E	24-SEP-2007
L8GRC	OT897	06-JUL-2007	13.87 E	24-SEP-2007
L8GRC	OT897	07-JUL-2007	14.38 E	24-SEP-2007
L8GRC	OT897	08-JUL-2007	14.69 E	24-SEP-2007
L8GRC	OT897	09-JUL-2007	14.36 E	24-SEP-2007
L8GRC	OT897	10-JUL-2007	14.49 E	24-SEP-2007
L8GRC	OT897	11-JUL-2007	14.10 E	24-SEP-2007
L8GRC	OT897	12-JUL-2007	13.54 E	24-SEP-2007
L8GRC	OT897	13-JUL-2007	13.23 E	24-SEP-2007
L8GRC	OT897	14-JUL-2007	12.89 E	24-SEP-2007
L8GRC	OT897	15-JUL-2007	12.54 E	24-SEP-2007
L8GRC	OT897	16-JUL-2007	12.34 E	24-SEP-2007
L8GRC	OT897	17-JUL-2007	12.49 E	24-SEP-2007
L8GRC	OT897	18-JUL-2007	12.36 E	24-SEP-2007
L8GRC	OT897	19-JUL-2007	12.33 E	24-SEP-2007
L8GRC	OT897	20-JUL-2007	12.47 E	24-SEP-2007
L8GRC	OT897	21-JUL-2007	12.52 E	24-SEP-2007
L8GRC	OT897	22-JUL-2007	13.02 E	24-SEP-2007
L8GRC	OT897	23-JUL-2007	13.46 E	24-SEP-2007
L8GRC	OT897	24-JUL-2007	13.60 E	24-SEP-2007
L8GRC	OT897	25-JUL-2007	13.59 E	24-SEP-2007
L8GRC	OT897	26-JUL-2007	13.56 E	24-SEP-2007
L8GRC	OT897	27-JUL-2007	13.51 E	24-SEP-2007
L8GRC	OT897	28-JUL-2007	13.49 E	24-SEP-2007
L8GRC	OT897	29-JUL-2007	13.38 E	24-SEP-2007
L8GRC	OT897	30-JUL-2007	13.31 E	24-SEP-2007
L8GRC	OT897	31-JUL-2007	13.29 E	24-SEP-2007
L8GRC	OT897	01-AUG-2007	13.34 E	24-SEP-2007

**Time-Series Data**

<b>Station</b>	<b>DBKEY</b>	<b>Daily Date</b>	<b>Data Value Code</b>	<b>Revision Date</b>
L8GRC	OT897	02-AUG-2007	13.70 E	24-SEP-2007
L8GRC	OT897	03-AUG-2007	13.92 E	24-SEP-2007
L8GRC	OT897	04-AUG-2007	13.94 E	24-SEP-2007
L8GRC	OT897	05-AUG-2007	14.61 E	24-SEP-2007
L8GRC	OT897	06-AUG-2007	15.28 E	24-SEP-2007
L8GRC	OT897	07-AUG-2007	15.21 E	24-SEP-2007
L8GRC	OT897	08-AUG-2007	15.19 E	24-SEP-2007
L8GRC	OT897	09-AUG-2007	15.37 E	24-SEP-2007
L8GRC	OT897	10-AUG-2007	15.45 E	24-SEP-2007
L8GRC	OT897	11-AUG-2007	15.41 E	24-SEP-2007
L8GRC	OT897	12-AUG-2007	15.38 E	24-SEP-2007
L8GRC	OT897	13-AUG-2007	15.01 E	24-SEP-2007
L8GRC	OT897	14-AUG-2007	15.22 E	24-SEP-2007
L8GRC	OT897	15-AUG-2007	15.38 E	24-SEP-2007
L8GRC	OT897	16-AUG-2007	15.34 E	24-SEP-2007
L8GRC	OT897	17-AUG-2007	15.36 E	24-SEP-2007
L8GRC	OT897	18-AUG-2007	15.38 E	24-SEP-2007
L8GRC	OT897	19-AUG-2007	15.37 E	24-SEP-2007
L8GRC	OT897	20-AUG-2007	14.78 E	24-SEP-2007
L8GRC	OT897	21-AUG-2007	13.62 E	24-SEP-2007
L8GRC	OT897	22-AUG-2007	12.86 E	24-SEP-2007
L8GRC	OT897	23-AUG-2007	12.72 E	24-SEP-2007
L8GRC	OT897	24-AUG-2007	12.50 E	24-SEP-2007
L8GRC	OT897	25-AUG-2007	12.38 E	24-SEP-2007
L8GRC	OT897	26-AUG-2007	12.71 E	24-SEP-2007
L8GRC	OT897	27-AUG-2007	13.06 E	24-SEP-2007
L8GRC	OT897	28-AUG-2007	13.04 E	24-SEP-2007
L8GRC	OT897	29-AUG-2007	12.77 E	24-SEP-2007
L8GRC	OT897	30-AUG-2007	12.49 E	24-SEP-2007
L8GRC	OT897	31-AUG-2007	12.24 E	24-SEP-2007
L8GRC	OT897	01-SEP-2007	12.29 E	24-SEP-2007
L8GRC	OT897	02-SEP-2007	12.38 E	24-SEP-2007
L8GRC	OT897	03-SEP-2007	12.23 E	24-SEP-2007
L8GRC	OT897	04-SEP-2007	12.06 E	24-SEP-2007
L8GRC	OT897	05-SEP-2007	12.07 E	24-SEP-2007
L8GRC	OT897	06-SEP-2007	12.18 E	24-SEP-2007
L8GRC	OT897	07-SEP-2007	12.21 E	24-SEP-2007
L8GRC	OT897	08-SEP-2007	12.11 E	24-SEP-2007
L8GRC	OT897	09-SEP-2007	11.88 E	24-SEP-2007
L8GRC	OT897	10-SEP-2007	11.71 E	24-SEP-2007
L8GRC	OT897	11-SEP-2007	11.75 E	24-SEP-2007
L8GRC	OT897	12-SEP-2007	11.80 E	24-SEP-2007
L8GRC	OT897	13-SEP-2007	12.17 E	24-SEP-2007
L8GRC	OT897	14-SEP-2007	12.62 E	24-SEP-2007
L8GRC	OT897	15-SEP-2007	12.64 E	24-SEP-2007
L8GRC	OT897	16-SEP-2007	12.72 E	24-SEP-2007
L8GRC	OT897	17-SEP-2007	12.81 E	28-JAN-2008

**Time-Series Data**

<b>Station</b>	<b>DBKEY</b>	<b>Daily Date</b>	<b>Data Value Code</b>	<b>Revision Date</b>
L8GRC	OT897	18-SEP-2007	13.29 E	28-JAN-2008
L8GRC	OT897	19-SEP-2007	12.94 E	28-JAN-2008
L8GRC	OT897	20-SEP-2007	13.03 E	28-JAN-2008
L8GRC	OT897	21-SEP-2007	12.97 E	28-JAN-2008
L8GRC	OT897	22-SEP-2007	13.52 E	28-JAN-2008
L8GRC	OT897	23-SEP-2007	13.60 E	28-JAN-2008
L8GRC	OT897	24-SEP-2007	13.94 E	28-JAN-2008
L8GRC	OT897	25-SEP-2007	14.49 E	28-JAN-2008
L8GRC	OT897	26-SEP-2007	14.96 E	28-JAN-2008
L8GRC	OT897	27-SEP-2007	15.10 E	28-JAN-2008
L8GRC	OT897	28-SEP-2007	14.98 E	28-JAN-2008
L8GRC	OT897	29-SEP-2007	14.80 E	28-JAN-2008
L8GRC	OT897	30-SEP-2007	15.00 E	28-JAN-2008
L8GRC	OT897	01-OCT-2007	15.33 E	28-JAN-2008
L8GRC	OT897	02-OCT-2007	16.12 E	28-JAN-2008
L8GRC	OT897	03-OCT-2007	16.67 E	28-JAN-2008
L8GRC	OT897	04-OCT-2007	16.67 E	28-JAN-2008
L8GRC	OT897	05-OCT-2007	15.28 E	28-JAN-2008
L8GRC	OT897	06-OCT-2007	16.04 E	28-JAN-2008
L8GRC	OT897	07-OCT-2007	16.12 E	28-JAN-2008
L8GRC	OT897	08-OCT-2007	16.13 E	28-JAN-2008
L8GRC	OT897	09-OCT-2007	16.47 E	28-JAN-2008
L8GRC	OT897	10-OCT-2007	16.53 E	28-JAN-2008
L8GRC	OT897	11-OCT-2007	16.53 E	28-JAN-2008
L8GRC	OT897	12-OCT-2007	16.57 E	28-JAN-2008
L8GRC	OT897	13-OCT-2007	16.51 E	28-JAN-2008
L8GRC	OT897	14-OCT-2007	16.52 E	28-JAN-2008
L8GRC	OT897	15-OCT-2007	16.49 E	28-JAN-2008
L8GRC	OT897	16-OCT-2007	16.44 E	28-JAN-2008
L8GRC	OT897	17-OCT-2007	16.34 E	28-JAN-2008
L8GRC	OT897	18-OCT-2007	16.37 E	28-JAN-2008
L8GRC	OT897	19-OCT-2007	16.14 E	28-JAN-2008
L8GRC	OT897	20-OCT-2007	16.01 E	28-JAN-2008
L8GRC	OT897	21-OCT-2007	15.69 E	28-JAN-2008
L8GRC	OT897	22-OCT-2007	15.12 E	28-JAN-2008
L8GRC	OT897	23-OCT-2007	15.05 E	28-JAN-2008
L8GRC	OT897	24-OCT-2007	16.27 E	28-JAN-2008
L8GRC	OT897	25-OCT-2007	16.54 E	28-JAN-2008
L8GRC	OT897	26-OCT-2007	16.42 E	28-JAN-2008
L8GRC	OT897	27-OCT-2007	16.49 E	28-JAN-2008
L8GRC	OT897	28-OCT-2007	16.54 E	28-JAN-2008
L8GRC	OT897	29-OCT-2007	16.61 E	28-JAN-2008
L8GRC	OT897	30-OCT-2007	16.19 E	28-JAN-2008
L8GRC	OT897	31-OCT-2007	15.10 E	28-JAN-2008
L8GRC	OT897	01-NOV-2007	15.75 E	28-JAN-2008
L8GRC	OT897	02-NOV-2007	16.40 E	28-JAN-2008
L8GRC	OT897	03-NOV-2007	16.61 E	28-JAN-2008

**Time-Series Data**

<b>Station</b>	<b>DBKEY</b>	<b>Daily Date</b>	<b>Data Value Code</b>	<b>Revision Date</b>
L8GRC	OT897	04-NOV-2007	16.61 E	28-JAN-2008
L8GRC	OT897	05-NOV-2007	16.55 E	28-JAN-2008
L8GRC	OT897	06-NOV-2007	16.55 E	28-JAN-2008
L8GRC	OT897	07-NOV-2007	16.51 E	28-JAN-2008
L8GRC	OT897	08-NOV-2007	16.54 E	28-JAN-2008
L8GRC	OT897	09-NOV-2007	16.69 E	28-JAN-2008
L8GRC	OT897	10-NOV-2007	16.70 E	28-JAN-2008
L8GRC	OT897	11-NOV-2007	16.69 E	28-JAN-2008
L8GRC	OT897	12-NOV-2007	16.66 E	28-JAN-2008
L8GRC	OT897	13-NOV-2007	16.70 E	28-JAN-2008
L8GRC	OT897	14-NOV-2007	16.68 E	28-JAN-2008
L8GRC	OT897	15-NOV-2007	16.68 E	28-JAN-2008
L8GRC	OT897	16-NOV-2007	16.58 E	28-JAN-2008
L8GRC	OT897	17-NOV-2007	16.58 E	28-JAN-2008
L8GRC	OT897	18-NOV-2007	16.59 E	28-JAN-2008
L8GRC	OT897	19-NOV-2007	16.48 E	28-JAN-2008
L8GRC	OT897	20-NOV-2007	14.84 E	28-JAN-2008
L8GRC	OT897	21-NOV-2007	15.07 E	28-JAN-2008
L8GRC	OT897	22-NOV-2007	15.51 E	28-JAN-2008
L8GRC	OT897	23-NOV-2007	15.27 E	28-JAN-2008
L8GRC	OT897	24-NOV-2007	15.15 E	28-JAN-2008
L8GRC	OT897	25-NOV-2007	15.52 E	28-JAN-2008
L8GRC	OT897	26-NOV-2007	15.31 E	28-JAN-2008
L8GRC	OT897	27-NOV-2007	15.20 E	28-JAN-2008
L8GRC	OT897	28-NOV-2007	14.50 E	28-JAN-2008
L8GRC	OT897	29-NOV-2007	14.54 E	28-JAN-2008
L8GRC	OT897	30-NOV-2007	14.35 E	28-JAN-2008
L8GRC	OT897	01-DEC-2007	14.55 E	28-JAN-2008
L8GRC	OT897	02-DEC-2007	14.82 E	28-JAN-2008
L8GRC	OT897	03-DEC-2007	14.54 E	28-JAN-2008
L8GRC	OT897	04-DEC-2007	14.41 E	28-JAN-2008
L8GRC	OT897	05-DEC-2007	14.26 E	28-JAN-2008
L8GRC	OT897	06-DEC-2007	13.60 E	28-JAN-2008
L8GRC	OT897	07-DEC-2007	12.99 E	28-JAN-2008
L8GRC	OT897	08-DEC-2007	12.87 E	28-JAN-2008
L8GRC	OT897	09-DEC-2007	13.18 E	28-JAN-2008
L8GRC	OT897	10-DEC-2007	13.28 E	28-JAN-2008
L8GRC	OT897	11-DEC-2007	13.30 E	28-JAN-2008
L8GRC	OT897	12-DEC-2007	13.48 E	28-JAN-2008
L8GRC	OT897	13-DEC-2007	13.74 E	28-JAN-2008
L8GRC	OT897	14-DEC-2007	14.98 E	28-JAN-2008
L8GRC	OT897	15-DEC-2007	15.82 E	28-JAN-2008
L8GRC	OT897	16-DEC-2007	14.71 E	28-JAN-2008
L8GRC	OT897	17-DEC-2007	13.69 E	28-JAN-2008
L8GRC	OT897	18-DEC-2007	12.93 E	28-JAN-2008
L8GRC	OT897	19-DEC-2007	13.68 E	28-JAN-2008
L8GRC	OT897	20-DEC-2007	14.26 E	28-JAN-2008

**Time-Series Data**

<b>Station</b>	<b>DBKEY</b>	<b>Daily Date</b>	<b>Data Value Code</b>	<b>Revision Date</b>
L8GRC	OT897	21-DEC-2007	14.23 E	28-JAN-2008
L8GRC	OT897	22-DEC-2007	15.25 E	28-JAN-2008
L8GRC	OT897	23-DEC-2007	16.00 E	28-JAN-2008
L8GRC	OT897	24-DEC-2007	15.70 E	28-JAN-2008
L8GRC	OT897	25-DEC-2007	14.77 E	28-JAN-2008
L8GRC	OT897	26-DEC-2007	13.80 E	28-JAN-2008
L8GRC	OT897	27-DEC-2007	13.67 E	28-JAN-2008
L8GRC	OT897	28-DEC-2007	13.44 E	28-JAN-2008
L8GRC	OT897	29-DEC-2007	13.75 E	28-JAN-2008
L8GRC	OT897	30-DEC-2007	14.16 E	28-JAN-2008
L8GRC	OT897	31-DEC-2007	13.66 E	28-JAN-2008
L8GRC	OT897	01-JAN-2008	12.94 E	28-JAN-2008
L8GRC	OT897	02-JAN-2008	13.06 E	28-JAN-2008
L8GRC	OT897	03-JAN-2008	13.07 E	28-JAN-2008
L8GRC	OT897	04-JAN-2008	13.17 E	28-JAN-2008
L8GRC	OT897	05-JAN-2008	13.48 E	28-JAN-2008
L8GRC	OT897	06-JAN-2008	13.91 E	28-JAN-2008
L8GRC	OT897	07-JAN-2008	14.01 E	28-JAN-2008
L8GRC	OT897	08-JAN-2008	13.72 E	28-JAN-2008
L8GRC	OT897	09-JAN-2008	13.44 E	28-JAN-2008
L8GRC	OT897	10-JAN-2008	12.86 E	28-JAN-2008
L8GRC	OT897	11-JAN-2008	13.18 E	28-JAN-2008
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L8GRC	OT897	14-JAN-2008	14.30 E	28-JAN-2008
L8GRC	OT897	15-JAN-2008	14.46 E	28-JAN-2008
L8GRC	OT897	16-JAN-2008	14.46 E	28-JAN-2008
L8GRC	OT897	17-JAN-2008	14.46 E	28-JAN-2008
L8GRC	OT897	18-JAN-2008	14.58 E	28-JAN-2008
L8GRC	OT897	19-JAN-2008	14.66 E	28-JAN-2008
L8GRC	OT897	20-JAN-2008	14.96 E	28-JAN-2008
L8GRC	OT897	21-JAN-2008	14.88 E	28-JAN-2008
L8GRC	OT897	22-JAN-2008	14.53 E	28-JAN-2008
L8GRC	OT897	23-JAN-2008	13.94 E	28-JAN-2008
L8GRC	OT897	24-JAN-2008	14.48 E	28-JAN-2008
L8GRC	OT897	25-JAN-2008	14.09 E	14-FEB-2008
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L8GRC	OT897	30-JAN-2008	14.90 E	14-FEB-2008
L8GRC	OT897	31-JAN-2008	14.95 E	14-FEB-2008
L8GRC	OT897	01-FEB-2008	14.42 E	14-FEB-2008
L8GRC	OT897	02-FEB-2008	14.27 E	14-FEB-2008
L8GRC	OT897	03-FEB-2008	14.39 E	14-FEB-2008
L8GRC	OT897	04-FEB-2008	14.35 E	14-FEB-2008
L8GRC	OT897	05-FEB-2008	14.15 E	14-FEB-2008

**Time-Series Data**

<b>Station</b>	<b>DBKEY</b>	<b>Daily Date</b>	<b>Data Value Code</b>	<b>Revision Date</b>
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L8GRC	OT897	08-FEB-2008	13.88 E	07-JUL-2008
L8GRC	OT897	09-FEB-2008	14.02 E	07-JUL-2008
L8GRC	OT897	10-FEB-2008	14.37 E	07-JUL-2008
L8GRC	OT897	11-FEB-2008	14.67 E	07-JUL-2008
L8GRC	OT897	12-FEB-2008	15.13 E	07-JUL-2008
L8GRC	OT897	13-FEB-2008	15.43 E	07-JUL-2008
L8GRC	OT897	14-FEB-2008	14.32 E	07-JUL-2008
L8GRC	OT897	15-FEB-2008	13.33 E	07-JUL-2008
L8GRC	OT897	16-FEB-2008	13.65 E	07-JUL-2008
L8GRC	OT897	17-FEB-2008	15.93 E	07-JUL-2008
L8GRC	OT897	18-FEB-2008	16.07 E	07-JUL-2008
L8GRC	OT897	19-FEB-2008	16.02 E	07-JUL-2008
L8GRC	OT897	20-FEB-2008	15.95 E	07-JUL-2008
L8GRC	OT897	21-FEB-2008	15.84 E	07-JUL-2008
L8GRC	OT897	22-FEB-2008	16.03 E	07-JUL-2008
L8GRC	OT897	23-FEB-2008	16.03 E	07-JUL-2008
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L8GRC	OT897	25-FEB-2008	15.98 E	07-JUL-2008
L8GRC	OT897	26-FEB-2008	15.96 E	07-JUL-2008
L8GRC	OT897	27-FEB-2008	15.98 E	07-JUL-2008
L8GRC	OT897	28-FEB-2008	15.84 E	07-JUL-2008
L8GRC	OT897	29-FEB-2008	15.79 E	07-JUL-2008
L8GRC	OT897	01-MAR-2008	15.81 E	07-JUL-2008
L8GRC	OT897	02-MAR-2008	15.82 E	07-JUL-2008
L8GRC	OT897	03-MAR-2008	15.76 E	07-JUL-2008
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L8GRC	OT897	06-MAR-2008	15.92 E	07-JUL-2008
L8GRC	OT897	07-MAR-2008	15.29 E	07-JUL-2008
L8GRC	OT897	08-MAR-2008	16.06 E	07-JUL-2008
L8GRC	OT897	09-MAR-2008	15.69 E	07-JUL-2008
L8GRC	OT897	10-MAR-2008	16.05 E	07-JUL-2008
L8GRC	OT897	11-MAR-2008	15.98 E	07-JUL-2008
L8GRC	OT897	12-MAR-2008	15.31 E	07-JUL-2008
L8GRC	OT897	13-MAR-2008	14.27 E	07-JUL-2008
L8GRC	OT897	14-MAR-2008	15.51 E	07-JUL-2008
L8GRC	OT897	15-MAR-2008	15.96 E	07-JUL-2008
L8GRC	OT897	16-MAR-2008	15.93 E	07-JUL-2008
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L8GRC	OT897	20-MAR-2008	15.62 E	07-JUL-2008
L8GRC	OT897	21-MAR-2008	15.49 E	07-JUL-2008
L8GRC	OT897	22-MAR-2008	15.54 E	07-JUL-2008
L8GRC	OT897	23-MAR-2008	15.47 E	07-JUL-2008

**Time-Series Data**

<b>Station</b>	<b>DBKEY</b>	<b>Daily Date</b>	<b>Data Value Code</b>	<b>Revision Date</b>
L8GRC	OT897	24-MAR-2008	13.23 E	07-JUL-2008
L8GRC	OT897	25-MAR-2008	11.74 E	07-JUL-2008
L8GRC	OT897	26-MAR-2008	14.47 E	07-JUL-2008
L8GRC	OT897	27-MAR-2008	15.50 E	07-JUL-2008
L8GRC	OT897	28-MAR-2008	15.48 E	07-JUL-2008
L8GRC	OT897	29-MAR-2008	15.46 E	07-JUL-2008
L8GRC	OT897	30-MAR-2008	15.44 E	07-JUL-2008
L8GRC	OT897	31-MAR-2008	15.48 E	07-JUL-2008
L8GRC	OT897	01-APR-2008	15.48 E	07-JUL-2008
L8GRC	OT897	02-APR-2008	15.41 E	07-JUL-2008
L8GRC	OT897	03-APR-2008	15.41 E	07-JUL-2008
L8GRC	OT897	04-APR-2008	15.55 E	07-JUL-2008
L8GRC	OT897	05-APR-2008	15.38 E	07-JUL-2008
L8GRC	OT897	06-APR-2008	15.46 E	07-JUL-2008
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L8GRC	OT897	08-APR-2008	13.35 E	07-JUL-2008
L8GRC	OT897	09-APR-2008	13.38 E	07-JUL-2008
L8GRC	OT897	10-APR-2008	15.63 E	07-JUL-2008
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L8GRC	OT897	12-APR-2008	15.71 E	07-JUL-2008
L8GRC	OT897	13-APR-2008	15.57 E	07-JUL-2008
L8GRC	OT897	14-APR-2008	15.70 E	07-JUL-2008
L8GRC	OT897	15-APR-2008	15.49 E	07-JUL-2008
L8GRC	OT897	16-APR-2008	15.28 E	07-JUL-2008
L8GRC	OT897	17-APR-2008	15.17 E	07-JUL-2008
L8GRC	OT897	18-APR-2008	15.08 E	07-JUL-2008
L8GRC	OT897	19-APR-2008	14.36 E	07-JUL-2008
L8GRC	OT897	20-APR-2008	12.86 E	07-JUL-2008
L8GRC	OT897	21-APR-2008	12.46 E	07-JUL-2008
L8GRC	OT897	22-APR-2008	12.76 E	07-JUL-2008
L8GRC	OT897	23-APR-2008	12.82 E	07-JUL-2008
L8GRC	OT897	24-APR-2008	12.79 E	07-JUL-2008
L8GRC	OT897	25-APR-2008	12.67 E	07-JUL-2008
L8GRC	OT897	26-APR-2008	12.68 E	07-JUL-2008
L8GRC	OT897	27-APR-2008	12.93 E	07-JUL-2008
L8GRC	OT897	28-APR-2008	13.06 E	07-JUL-2008
L8GRC	OT897	29-APR-2008	13.18 E	07-JUL-2008
L8GRC	OT897	30-APR-2008	13.22 E	07-JUL-2008

DBKEY: OT897; START: 2001, END: 2008

STATION: L8GRC;

AGENCY: WMD; LAT: 264323, LONG: 802148

COUNTY: PAL; SECTION: 20, TOWN: 43, RANGE: 40

TYPE: STG; ALTERNATE ID: L8GRC+

UNITS: FT NGVD29

STAT: MEAN

FQ: DA

## Attachment C:

# Piezometer Depth to Water Spreadsheet

SITE	DEPTH	SURVEYED ELEVATION (TOC in FT) (03/29/07) +/- 0.1'	ACTUAL DEPTH (FT) (6/29/05)	ACTUAL DEPTH (FT) (3/29/07)	DEPTH TO WATER (FT) 5/03/2007	DEPTH TO WATER (FT) 09/17/07	DEPTH TO WATER (FT) 10/10/07	DEPTH TO WATER (FT) 02/13/08	DEPTH TO WATER (FT) 03/18/08	DEPTH TO WATER (FT) 04/11/08
PZ1A	15.5'	16.16	18.02	18.02	12.95	destroyed	destroyed	destroyed	destroyed	destroyed
PZ1B	35.5'	16.26	37.96	37.95	13.24	destroyed	destroyed	destroyed	destroyed	destroyed
PZ1C	55.5'	16.09	58.16	58.17	13.08	destroyed	destroyed	destroyed	destroyed	destroyed
PZ1D	75.5'	16.08	78.34	78.32	13.18	destroyed	destroyed	destroyed	destroyed	destroyed
PZ5A	15.5'	22.95	17.99	18.00	17.15	14.75	10.52	10.44	9.67	9.97
PZ5B	35.5'	23.08	38.02	38.02	17.31	14.92	10.77	10.42	9.88	10.17
PZ5C	55.5'	23.19	58.19	58.20	17.45	15.04	10.94	10.54	10.02	10.32
PZ5D	75.5'	23.02	78.31	78.30	17.35	14.74	10.94	10.42	9.95	10.27
PZ6A	15.5'	N/A <sup>4</sup>	18.08	N/A <sup>4</sup>	N/A <sup>4</sup>	N/A <sup>4</sup>	N/A <sup>4</sup>	N/A <sup>4</sup>	N/A <sup>4</sup>	N/A <sup>4</sup>
PZ8A	20'	26.80	23.00	23.02	18.73	16.61	13.32	13.54	13.11	13.53
PZ8B	40'	26.57	43.13	43.14	18.61	16.53	13.25	13.23	13.01	13.41

Piezometer readings taken monthly during inflow or outflow events only